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(U.S.) Geological Survey, Lakewood, CO

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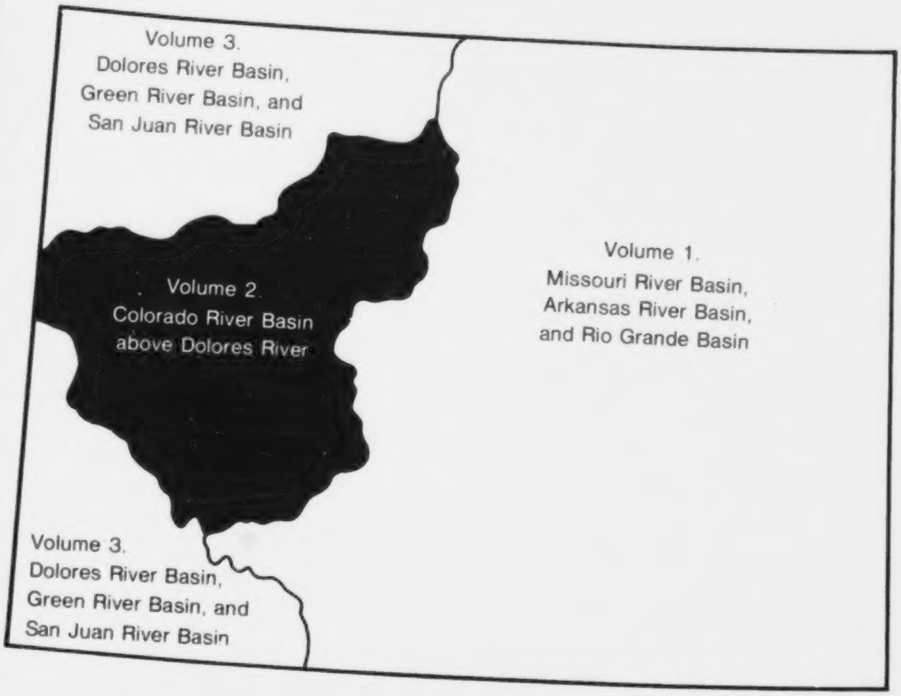
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Prepared in cooperation with the State of Colorado
and with other agencies

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CALENDAR FOR WATER YEAR 1982

1981

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For information on the water program in Colorado write to:

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U.S. Geological Survey
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Denver Federal Center
Lakewood, CO 80225

1983

PREFACE

This report, which consists of three volumes, was prepared by the U.S. Geological Survey in cooperation with the State of Colorado and other agencies by personnel of the Colorado District of the Water Resources Division under the supervision of J. F. Blakey, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region, Lakewood, Colorado.

This report is one of a series issued State by State under the direction of Philip Cohen, Chief Hydrologist, and James E. Biesecker, Assistant Chief Hydrologist for Scientific Publications and Data Management, Reston, Virginia.

Data for Colorado are in three volumes as follows:

Volume 1. Missouri River, Arkansas River, and Rio Grande basins in Colorado,
Volume 2. Colorado River basin in Colorado, above the Dolores River, and
Volume 3. Dolores River, Green River, and San Juan River basins in Colorado.

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Partial tables: (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature]

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WATER RESOURCES DATA FOR COLORADO, 1982

VOLUME 2: COLORADO RIVER BASIN ABOVE THE DOLORES RIVER

By R.C. Ugland, J.T. Steinheimer, J.L. Blattner, and R.G. Kretschman

INTRODUCTION

Water-resources data for the 1982 water year for Colorado consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (Volumes 1, 2, and 3) contains discharge records for 408 streamflow-gaging stations, stage and contents of 27 lakes and reservoirs, low-flow data for 6 partial-record stations, peak flow information for 30 crest-stage partial-record stations and 50 miscellaneous sites; water-quality data for 163 streamflow-gaging stations and 245 miscellaneous sites; and water levels for 55 observation wells. Locations of lake- and streamflow-gaging stations and water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2, and locations of observation wells are shown in figure 3. Nine pertinent stations in bordering States also are included in this report. The records were collected and computed by the Colorado District. These data were collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado and represent part of the National Water Data System.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface-water Supply of the United States." These water-supply papers were published in an annual series through September 30, 1960, and then in 5-year compilations for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual series of water-supply papers entitled "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be purchased from Eastern Distribution Branch Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data on streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-82-2." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

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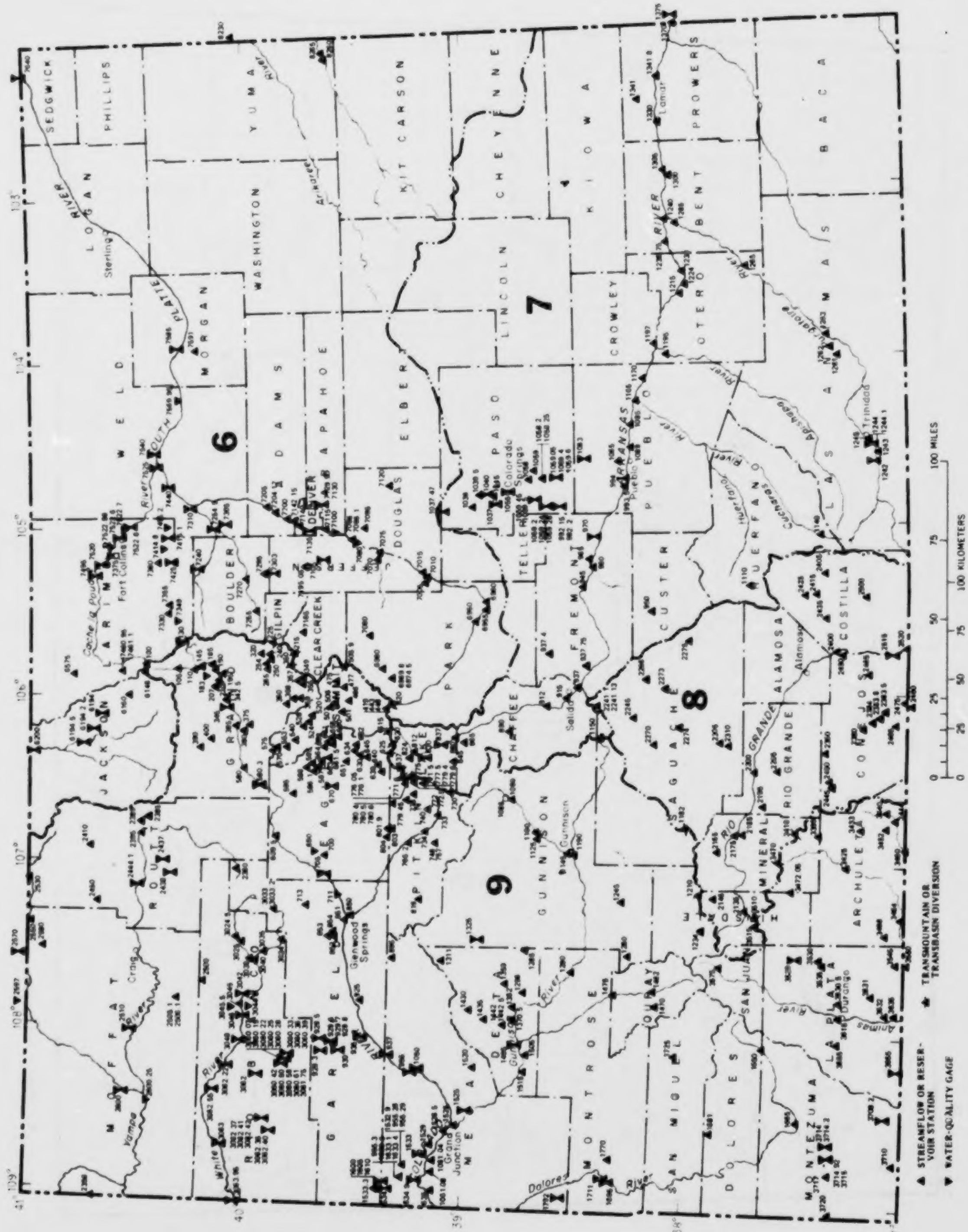
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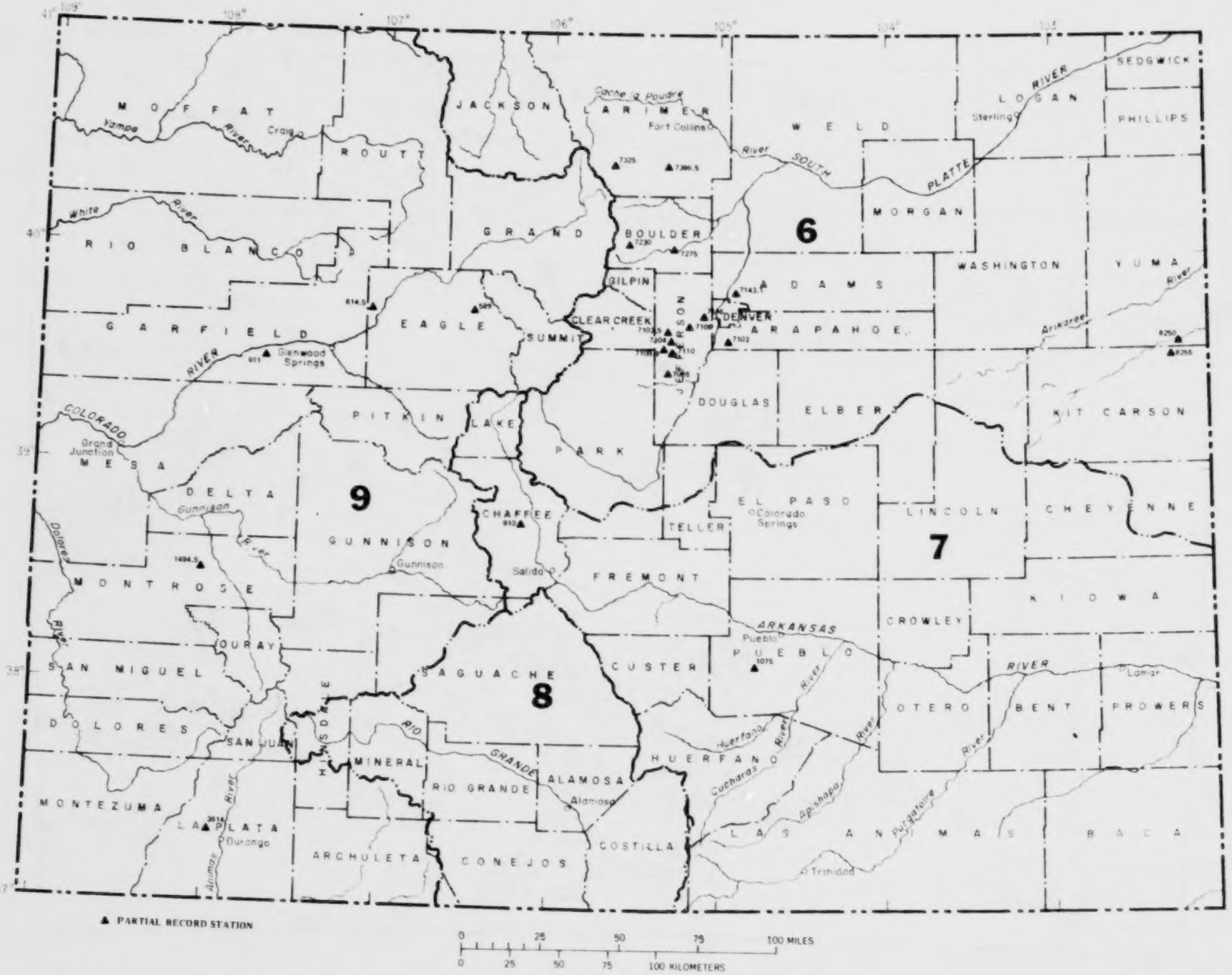
▲ STREAMFLOW OR RESERVOIR STATION
▼ WATER-QUALITY GAGE
★ TRANSMOUNTAIN OR TRANSBASIN DIVERSION

Figure 1.--Location of lake- and streamflow-gaging stations and quality-of-water stations in Colorado.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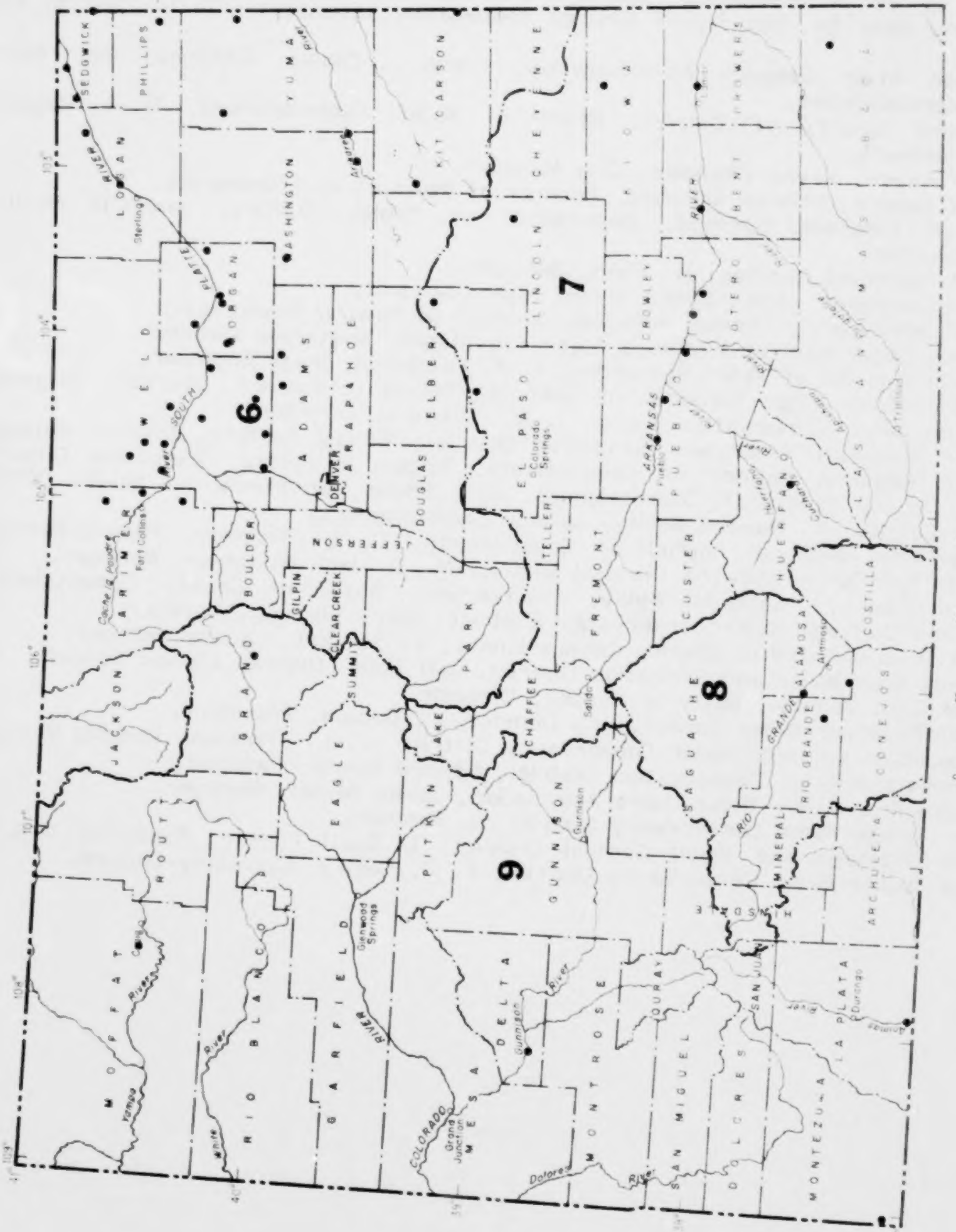
River
RIO BLANCO
GRAND
BOULDER
7230
7275
6
MORGAN
WASHINGTON
YUMA
River
GILPIN
ADAMS
7143.1
DENVER
CLEAR CREEK
JEFFERSON
7109
7103.5
7104
7110
7102
ARAPAHOE
Arikaree
8250
8255
GARFIELD
614.5
EAGLE
595
SUMMIT
RIVER
911
Glenwood Springs
DOUGLAS
ELBERT
KIT CARSON
COLORADO
PITKIN
LAKE
PARK
Grand Junction
MESA
DELTA
9
Gunnison
River
CHAFFEE
910
EL PASO
Colorado Springs
TELLER
LINCOLN
CHEYENNE
Dolores
GUNNISON
Gunnison
7
1494.5
MONTROSE
Salida
FREMONT
KIOWA
River
ARKANSAS
Pueblo
CROWLEY
OURAY
PUEBLO
1075
SAN MIGUEL
SAGUACHE
CUSTER
RIVER
Lamar
8
River
OTERO
BENT
PROWERS
HINSDALE
DOLORES
SAN JUAN
RIO
Huerfano
River
River
MINERAL
GRANDE
HUERFANO
Cucharas
River
MONTEZUMA
River
RIO GRANDE
ALAMOSA
Alamosa
Apishapa
3614
LA PLATA
Durango
Animas
ARCHULETA
CONEJOS
COSTILLA
LAS ANIMAS
Purgatoire
BACA
Trinidad
▲ PARTIAL RECORD STATION
0
25
50
75
100 MILES
0
25
50
75
100 KILOMETERS

Figure 2.--Location of crest-stage and low-flow partial record stations in Colorado.


SEDGWICK
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6
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Sterling
Fort Collins
Colorado Springs
Pueblo
Salida
Alamosa
Gunnison
Glenwood Springs
Grand Junction
Craig
Durango
Trinidad
SOUTH PLATTE RIVER
ARKANSAS River
RIO GRANDE
COLORADO RIVER
Gunnison River
Dolores River
Yampa River
White River
Cache la Poudre River
0 25 50 75 100 MILES
0 25 50 75 100 KILOMETERS
103°
104°
105°
106°
107°
108°
109°
41°
40°
39°
38°
37°

Figure 3.--Location of observation wells in Colorado.

COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895 and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

Arkansas River Compact Administration, Frank G. Cooley, Chairman and Federal Representative.
City and County of Denver, Board of Water Commissioners, M. A. Pugsley, President.
City of Aspen, Wayne Chapman, City Manager.
City of Aurora, Thomas Griswald, Manager of Planning and Resources.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Glenwood Springs, M. Flinn, Manager.
City of Longmont, James Cinea, Water Superintendent.
City of Northglenn, Thomas Ambalam, Director of Natural Resources.
Colorado Department of Highways, Jack Kinstlinger, Executive Director.
Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Colorado Water Conservation Board, J. W. McDonald, Director.
Copper Mountain Water and Sanitation District, William Caffery, District Manager.
Denver Regional Council of Governments, Robert D. Farley, Executive Director.
Eagle County Board of Commissioners, Eric Edeem, Environmental Health Officer.
Grand County, R. Howard Moody, County Commissioner.
Larimer-Weld Regional Council of Governments, T. L. Trembly, Project Manager.
Metropolitan Denver Sewage Disposal District No. 1, Jack B. Enger, Manager.
Mineral County, Nellie M. Wyley, Chairperson, Board of County Commissioners.
Northern Colorado Water Conservation District, Larry Simpson, Manager.
Pitkin County Board of County Commissioners, C. Stewart, County Manager.
Pleasant View Water and Sanitation District, Jeff Isum, District Liaison Officer.
Pueblo Civil Defense, Betty Jo Hopper, Director.
Purgatoire River Water Conservancy District, C. Latuda, President.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
Southwestern Water Conservation District, Edward Searle, Manager.
Uncompaghre Valley Water Users Association, James Herbit, Manager.
Upper Yampa Water Conservancy District, J. Fetcher.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
Yellow Jacket Water Conservancy District, F. G. Cooley, Secretary-Council.

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The Colorado District personnel who contributed significantly to the collection and preparation of the data in this report were:

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HYDROLOGIC CONDITIONS

Overview of the State for the 1982 Water Year

The 1982 water year began with above normal precipitation west of the Continental Divide and below normal precipitation east of the Divide. This pattern persisted through April. In May, intense rains on the eastern plains eased the below normal precipitation that had prevailed since October. This began a wetter-than-normal trend throughout the State that lasted for the remainder of the water year.

Precipitation and departures-from-normal data obtained from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service for the five major drainage basins in Colorado are shown in table 1. Precipitation and departures from normal are shown on a cumulative basis for each half of the water year and for the entire water year. During the first half of the year the Colorado River and the Rio Grande basin received more than normal precipitation whereas the Arkansas River, Kansas River, and the South Platte River basin all received less than normal precipitation. The last half of the water year all basins received above normal precipitation and the total year was above normal for the entire state.

Table 1.--Precipitation and departures from normal, in inches

Drainage basin	October-March		April-September		1982 water year	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Arkansas River-----	3.22	-0.94	12.61	+1.48	15.83	+0.54
Colorado River-----	9.65	+1.99	9.43	+1.25	19.08	+3.24
Kansas River-------	2.35	-1.26	16.85	+3.05	19.20	+1.79
South Platte River-	3.21	-1.12	13.69	+2.60	16.90	+1.48
Rio Grande River---	4.94	+.36	8.98	+1.69	13.92	+2.05

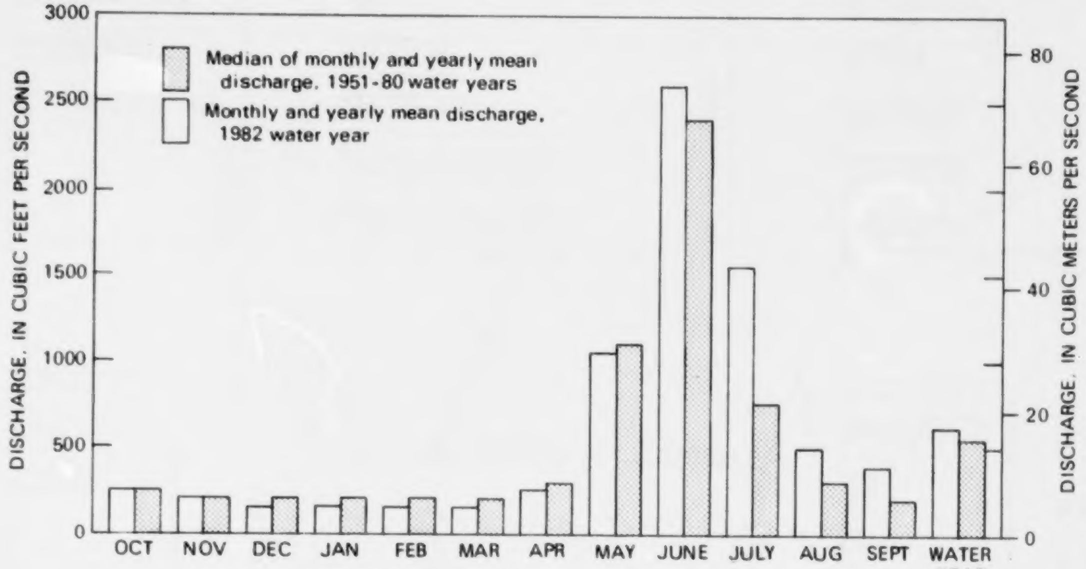
Streamflow

The monthly and annual mean discharges for the 1982 water year are compared with the medians for the 1951-80 water years as shown in figure 4. The monthly mean discharges for the 09070000 Eagle River below Gypsum station ranged from 86 percent of normal in April to 197 percent of normal in July. The water-year mean was 115 percent of normal as compared with 62 percent of normal in the 1981 water year. The 09112500 East River at Almont station had monthly mean discharges ranging from 73 percent of normal in April to 192 percent of normal in September. The water-year mean was 108 percent of normal as compared with 51 percent of normal in the 1981 water year.

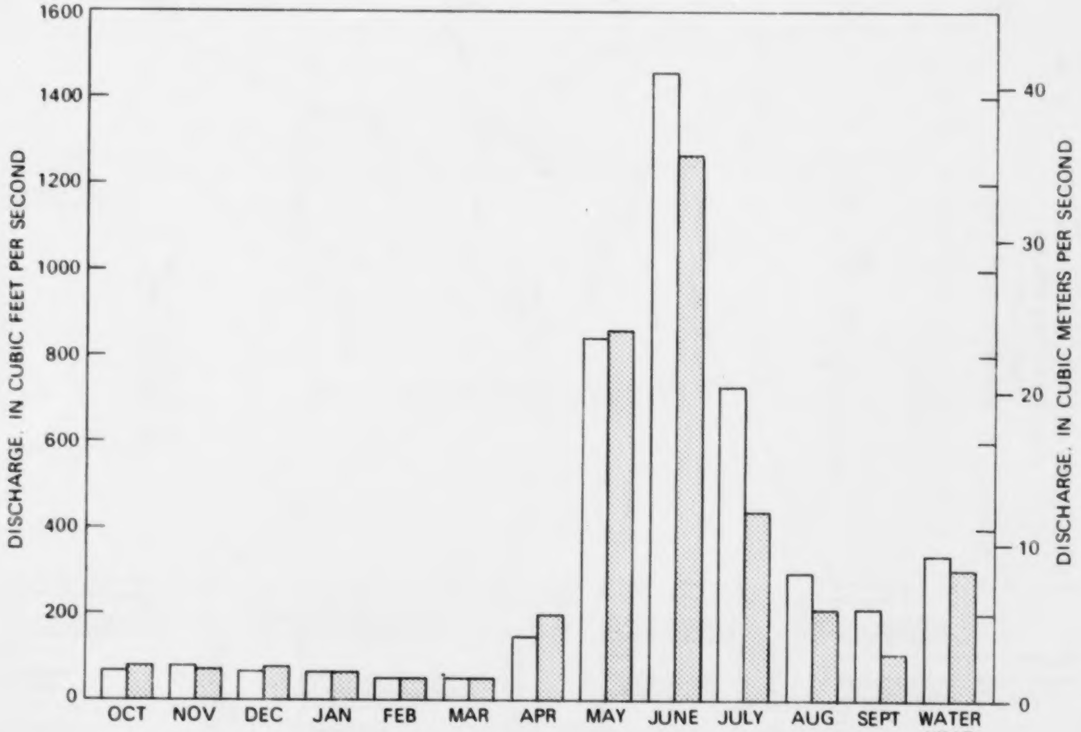
The reservoir storage in Taylor Park Reservoir increased 33,870 acre-ft (41.8 hm^3) during the water year. On July 27, a very intense thunderstorm on an upper tributary of Dry Creek, located near Olathe, washed out 2 bridges and damaged 14 others located on Dry Creek. This storm produced a peak of record (1978-82) discharge of 1,040 ft^3/s (29.5 m^3/s) at the partial-record station (09149450) Dry Creek near Olathe.

Chemical Quality of Streamflow

Water-quality conditions as defined by dissolved solids, hardness, and nutrient species concentrations vary considerably within the State (fig. 5). Much of the variation can be explained by differences in geology, climate, land use, and water use. In general, the quality of high mountain streams is characterized by low concentrations of dissolved constituents (dissolved solids less than 80 mg/L). The relatively chemically inert igneous rocks in mountainous areas and lack of man-induced influences are primary influences on water-quality conditions in these areas. However, local areas where streams contain large quantities of dissolved constituents (specific conductance ranging from 200 to 1500 mmhos) as well as heavy metals (cadium, copper, iron, lead, manganese, nickel, zinc, and occasionally selenium) occur around metal-mining districts (Moran and Wentz, 1974).



A. Eagle Creek below Gypsum. Drainage area 944 square miles (2,445 square kilometers)



B. East River at Almont. Drainage area 289 square miles (749 square kilometers)

Figure 4.--Discharge for 1982 water year compared with median discharge for 1951-80 water years at two representative streamflow-gaging stations.

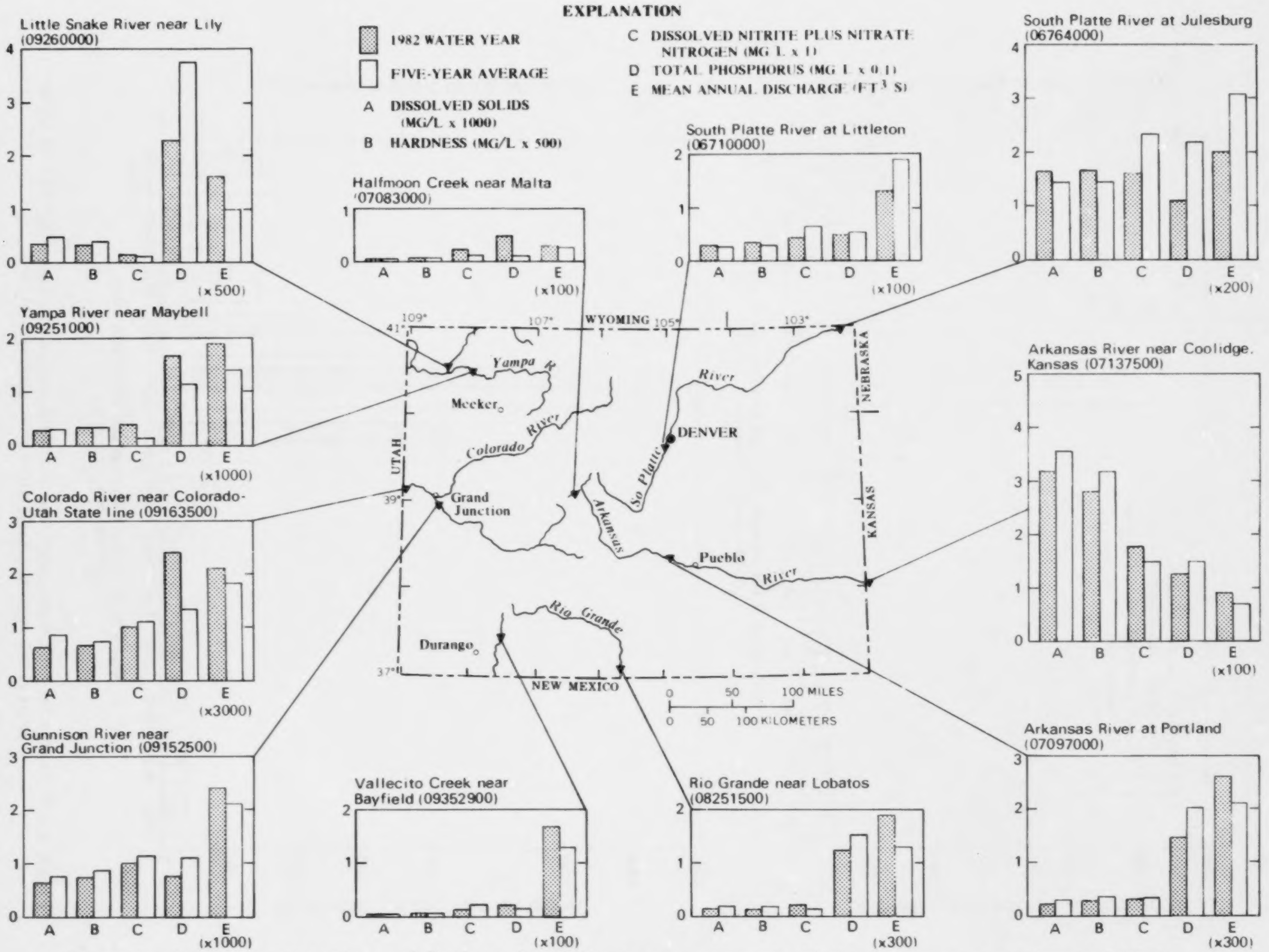


Figure 5.--Average concentrations and discharge for 1982 water year compared with the average concentrations and discharge for 1977-81 water years.

Chemical Quality of Streamflow--continued

As streams flow from high elevations to lower elevations in eastern and western Colorado, geological formation, and land-and water-use changes, such as an increase in sedimentary rock types, agricultural water-use and industrial and mining demands, interact to increase concentrations of dissolved chemical constituents. As evidenced by the graphical summaries in figure 5, average concentrations of dissolved chemical constituents are greater in eastern Colorado streams than in western Colorado streams.

The fact that 1982 water-year average concentrations of dissolved constituents generally are lower than the previous 5-year average is consistent with dilution resulting from 1982 water-year flows that in most instances exceeded the previous 5-year average flow.

Chemical and suspended-material loading is generally directly correlated with flow increases. As shown in figure 5, average annual flows are much smaller in streams flowing from eastern Colorado than from western Colorado. Consequently, dissolved and suspended chemical loads are less in eastern Colorado than in western Colorado streams.

Ground-Water

Water levels indicate the response of the aquifer to recharge and discharge. Recharge and discharge can be either natural or man-made. Water levels will rise when recharge is plentiful and discharge is small and will decline when recharge is small and discharge is large. Water levels also are used to help define hydrologic units and water-supply potential.

The aquifer systems within the State can be grouped into two catagories: unconsolidated aquifers and consolidated aquifers. The unconsolidated aquifers receive recharge from precipitation, return flow from irrigation, and leakage from canals and streams. Discharge may be as seepage of ground water to streams, seeps, or springs, by loss to evapotranspiration, or by withdrawl by wells. The consolidated aquifers receive recharge from precipitation and streams crossing outcrop areas. These aquifers primarily discharge water to springs and streams, although locally some discharge is by wells.

East of the Continental Divide, because of the substantial utilization of ground water by man, the major fluctuations are declines caused by well pumpage. West of the Divide, where withdrawal is low, the water-level fluctuations reflect mostly changes in natural conditions.

Ground water is being mined from the unconsolidated aquifers in the Northern High Plains and from the consolidated aquifers in the Denver Basin. The aquifers in the alluvial valleys in eastern Colorado have been affected by both surface-water irrigation and ground-water pumpage. Most of the aquifers in western Colorado are still under natural conditions except where ground water is being pumped for the production of energy resources.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Bacteria are microscopic unicellular organisms, typically spherical, rod like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms which produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2C° on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which the bottom of a streambed, lake, pond, reservoir, or estuary is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter (mg/L), necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area of volume of habitat.

Ash mass is the mass of amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and those for periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimeter from 1 square kilometer.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic foot per second (cfs, ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second, or 448.8 gallons per minute, or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This may include some very small (colloidal) suspended particles as well as the amount of substance present in true chemical solution. It is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved oxygen (DO) is the dissolved-oxygen content of water in equilibrium with air and is a function of atmospheric pressure and temperature and dissolved-solids concentration of the water. The capacity of water for dissolved-oxygen decreases as dissolved solids or temperature increase or as atmospheric pressure decreases. Dissolved-solids concentration has the least effect on dissolved-oxygen concentration. Photosynthesis and respiration may cause diel variations in dissolved-oxygen concentration in water from some streams.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (UG/L, µg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Table 2.--*Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter*

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*......	0.11119	Iodide (I^{-1})..........	0.00788
Ammonia as N..........	.07139	Iron (Fe^{+3})*..........	.05372
Barium (Ba^{+2}).........	.01456	Lead (Pb^{+2})*..........	.00965
Bicarbonate (HCO_3^{-1})..	.01639	Lithium (Li^{+1})*.......	.14411
Bromide (Br^{-1})........	.01251	Magnesium (Mg^{+2})......	.08226
Calcium (Ca^{+2})........	.04990	Manganese (Mn^{+2})*.....	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2})*........	.03406
Chloride (Cl^{-1}).......	.02821	Nitrate as N..........	.07139
Chromium (Cr^{+6})*......	.11539	Nitrite as N..........	.07139
Cobalt (Co^{+2})*........	.03394	Phosphate,ortho as P..	.09686
Copper (Cu^{+2})*........	.03148	Potassium (K^{+1}).......	.02557
Cyanide (CN^{-1})........	.03844	Sodium (Na^{+1}).........	.04350
Fluoride (F^{-1})........	.05264	Strontium (Sr^{+2})*.....	.02283
Hydrogen (H^{+1})........	.99209	Sulfate (SO_4^{-2}).......	.02082
Hydroxide (OH^{-1})......	.05880	Zinc (ZN^{+2})*..........	.03060

*Constituents reported in micrograms per liter; multiply by factor and divide results by 1,000.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Table 3.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*

[All values calculated to three significant figures]

Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by	Range of concentration in 1000 mg/L	Divide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay............	0.00024 - 0.004	Sedimentation
Silt............	.004 - .062	Sedimentation
Sand............	.062 - 2.0	Sedimentation or sieve
Gravel..........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Periphyton is the assemblage of microorganisms attached to, and growing upon, solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide network is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per mL of sample.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 disintegrations per minute (dpm).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical network is a network of regularly sampled water-quality stations where samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose and Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in µg/L (micrograms per liter), radium as radium-226 in PC/L (pCi/L, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter (µg/L). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft (0.09 m) above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge in cfs times concentration in mg/L times 0.0027.

Suspended-sediment load is that quantity of suspended sediment passing a section in a specified period.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the number and specific chemical types of ions in solution and can be used for approximating the dissolved-solids content in the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Suspended, recoverable the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total, recoverable the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in the U.S. Geological Survey is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1981, is called the "1981 water year."

Weighted average is used in this report to indicate the discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to State annual basic-data reports published prior to 1975.

WDR is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to State annual basic-data reports published after 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and each partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station.

Gaps are left in the sequential allocation of numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07083000, which appears just to the left of the station name, includes the 2-digit part number "07" plus the 6-digit downstream order number "083000." In this report the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are for Part 6 (Missouri River basin), Part 7 (Lower Mississippi River basin), and Part 8 (Western Gulf of Mexico basins). Records for Part 9 (Colorado River Basin) are in Volumes 2 and 3. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation-network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual Water-Supply Paper series, "Quality of Surface Water for Irrigation, Western States."

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) To depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the revisions, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow of the gaging station, availability of water-quality records, and reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height, if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second (ft^3/s) during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and at miscellaneous sites follow the information for continuous record sites. Data for partial-record discharge stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" means within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second (ft^3/s) for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. However, because all the effects cannot be measured or evaluated, satisfactory adjustments generally cannot be made. For some stations, available figures of diversions or change in contents of reservoirs are included as supplemental data. Even at those stations where adjustments can be made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected at many sites in Colorado during the water year by the following agencies: City of Colorado Springs; Colorado Division of Water Resources; Forest Service, U.S. Department of Agriculture; City and County of Denver, Board of Water Commissioners; National Weather Service, Department of Commerce; and the Bureau of Reclamation.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Water samples for analyses usually are collected at or near streamflow-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (such as, specific conductance, pH, dissolved oxygen, water temperature, sediment discharge), extremes for the period of daily record, extremes for current year, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations," which are listed on page 35.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling, as much as possible, consistent wth available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field determination of carbonate and bicarbonate in the laboratory.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 grams per milliliter (g/mL), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water Temperatures

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for surface-water stations. For stations where water temperatures are taken manually the water temperatures are taken at about the same time each day. Large streams have a small diel temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges. At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Table 4.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*$^{\circ}C=5/9(^{\circ}F-32^{\circ})$ or $^{\circ}F=9/5(^{\circ}C)+32^{\circ}$.

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. See "Definition of Terms," and table 5 for converting English units to SI units.

The biological information includes qualitative and quantitative analyses of plankton, periphyton, Chlorophyll *a* and *b*, biomass and bottom organisms. Microbiological information includes quantitative identification of selected bacteriological indicator organisms.

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). Analysis of pesticides and organic substances in water are described by Goerlitz and Lamar (1967), Lamar, Goerlitz, and Law (1965), and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others (1973).

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated. A zero value in the sediment-discharge column when there are nonzero values in the mean discharge and mean concentration columns indicates the load is less than 0.005 ton per day.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the streams.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

WATER-SUPPLY PAPERS

The annual series of Water-Supply Papers that give information on quality of surface waters in Colorado are shown in the following table:

Table 5.--Water-Supply Paper numbers and parts, water years 1941-71

Year	Part 6	Part 7	Part 8	Part 9	Irrigation (1951-65)[a]
1941	942	942	942	942	----
1942	950	950	950	950	----
1943	970	970	970	970	----
1944	1022	1022	1022	1022	----
1945	1030	1030	1030	1030	----
1946	1050	1050	1050	1050	----
1947	1102	1102	1102	1102	----
1948	1132	1133	1133	1133	----
1949	1162	1163	1163	1163	----
1950	1187	1188	1188	1189	----
1951	1198	1199	1199	1200	1264
1952	1251	1252	1252	1253	1362
1953	1291	1292	1292	1293	1380
1954	1351	1352	1352	1353	1430
1955	1401	1402	1402	1403	1465
1956	1451	1452	1452	1453	1485
1957	1521	1522	1522	1523	1524
1958	1572	1573	1573	1574	1575
1959	1643	1644	1644	1645	1699
1960	1743	1744	1744	1745	1746
1961	1883	1884	1884	1885	1886
1962	1943	1944	1944	1945	1946
1963	1949	1950	1950	1951	1952
1964	1956	1957	1957	1958	1960
1965	1963	1964	1964	1965	1967
1966	1993	1994	1994	1995	----
1967	2013	2014	2014	2015	----
1968	2095	2096	2097	2098	----
1969	2145	2146	2147	2148	----
1970	2155	2156	2157	2158	----
1971	2165	[b]2166	[b]2167	[b]2168	----

[a] Annual series, "Quality of Surface Waters for Irrigation, Western States."

[b] In preparation.

Information about reports and other data on quality of water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

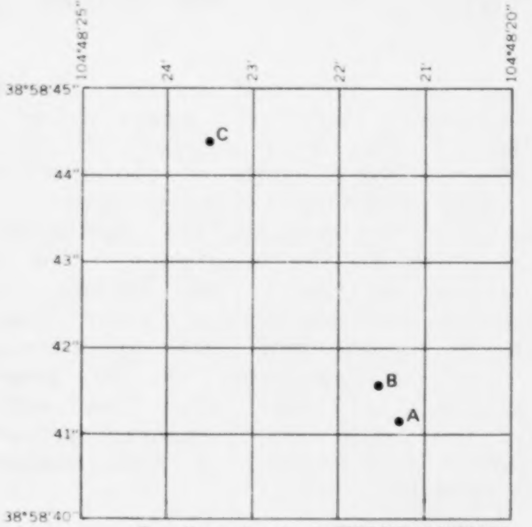
EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of Data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a record of water-level changes in important aquifers.

The locations of wells are referenced by two systems. One system is based on latitude and longitude, and the second is based on the U.S. Bureau of Land Management system of land subdivision. The latitude and longitude grid system facilitates machine processing of data and plotting of data points.

The latitude and longitude grid system is used to provide the geographic location of each well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; N designates north; the next seven digits denote degrees, minutes, and seconds of longitude; and the last two digits are sequential numbers for wells within a 1-second grid, as shown below in figure 6.



Coordinates for site A 385841N104482101
B 385841N104482102
C 385844N104482300

Figure 6.--System for numbering wells and miscellaneous sites (latitude and longitude).

The local well number locates a well within a 10-acre (4.0-ha) tract using the U.S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi (10 km) by townships and is subdivided in the east-west direction every 6 mi (10 km) by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi^2 (93-km^2) area described by the township and range designation is subdivided into 1-mi^2 (2.59-km^2) areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres (259 ha), is subdivided into quarter sections. The 160-acre (64.8-ha) area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre (16.2-ha) area is designated in the same manner by the second letter following the section. The quarter-quarter section is subdivided into quarter-quarter-quarter sections. The 10-acre (4.0-ha) area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre (4.0-ha) tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

The local number is provided for continuity with older reports.

Measurements are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well insure that measurements at each well are of consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water-supply paper covering the entire nation was issued each year (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for six sections of the United States. Water-level data for Colorado are included in the water-supply papers listed below, each report containing one or more calendar years (January through December) of data. Data in this report are for the 12-month water year ending September 30.

Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.
1940	910	1945	1027	1950	1169	1955	1408
1941	940	1946	1075	1951	1195	1956-60	1760
1942	948	1947	1100	1952	1225	1961-65	1845
1943	990	1948	1130	1953	1269	1966-70	1980
1944	1020	1949	1160	1954	1325		

Information about reports and other data on ground water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

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COLORADO RIVER MAIN STEM

09010500 COLORADO RIVER BELOW BAKER GULCH, NEAR GRAND LAKE, CO

LOCATION.--Lat 40°19'33", long 105°51'22", in NE¼NW¼ sec.12, T.4 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft (150 m) downstream from Baker Gulch, 1.0 mi (1.6 km) upstream from Bowen Gulch, and 5.5 mi (8.8 km) northwest of town of Grand Lake.

DRAINAGE AREA.--53.4 mi² (138 km²).

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,750 ft (2,667 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period Aug. 29 to Sept. 30, which are poor. Transmountain diversion above station by Grand River ditch (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 61.0 ft³/s (1.728 m³/s), 44,190 acre-ft/yr (54.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 976 ft³/s (27.6 m³/s) June 30, 1957, gage height, 7.19 ft (2.192 m); maximum gage height, 7.30 ft (2.225 m) June 25, 1971; minimum daily discharge, 3.0 ft³/s (0.085 m³/s) Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 422 ft³/s (12.0 m³/s) at 2300 June 28, gage height, 6.00 ft (1.829 m); minimum daily, 5.4 ft³/s (0.15 m³/s) Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	15	11	9.0	7.0	7.0	7.0	64	169	371	68	28
2	14	15	11	9.0	7.0	7.0	7.0	76	175	348	66	27
3	16	15	11	9.0	7.0	6.0	7.0	90	162	315	65	25
4	24	14	11	9.0	7.0	6.0	8.0	116	154	300	65	25
5	37	13	11	9.0	7.0	6.0	8.0	95	186	278	63	34
6	24	13	11	9.0	7.0	6.0	8.0	73	221	255	55	36
7	22	14	11	8.0	7.0	6.0	8.0	61	221	211	50	35
8	21	14	11	8.0	7.0	6.0	8.0	59	253	194	45	36
9	23	14	11	8.0	7.0	6.0	8.0	63	259	199	46	42
10	20	13	11	8.0	7.0	6.0	9.1	65	258	188	46	34
11	19	14	10	8.0	7.0	6.0	9.1	63	237	177	45	38
12	26	15	10	8.0	7.0	6.0	9.9	63	238	170	45	55
13	26	12	10	8.0	7.0	6.0	10	63	257	176	46	48
14	26	13	10	8.0	7.0	6.0	12	55	266	163	52	57
15	25	14	10	8.0	7.0	6.0	11	53	243	144	43	53
16	25	14	10	8.0	7.0	6.0	11	56	255	136	39	49
17	23	13	10	8.0	7.0	6.0	11	61	309	135	38	47
18	22	14	10	8.0	7.0	6.0	14	65	333	136	37	45
19	21	12	10	8.0	7.0	6.0	15	75	302	116	34	43
20	19	12	10	8.0	7.0	6.0	16	76	312	102	34	45
21	19	12	10	8.0	7.0	5.4	16	73	310	96	32	52
22	18	12	10	8.0	7.0	6.0	19	88	305	92	31	50
23	15	12	9.0	8.0	7.0	6.0	25	106	306	88	30	65
24	16	12	9.0	8.0	7.0	6.0	26	114	326	88	27	55
25	17	12	9.0	8.0	7.0	6.0	35	110	334	91	26	54
26	20	12	9.0	8.0	7.0	6.0	31	110	334	93	26	81
27	17	11	9.0	8.0	7.0	6.0	28	124	325	87	26	67
28	17	11	9.0	8.0	7.0	6.0	28	144	364	88	26	65
29	18	11	9.0	8.0	---	6.0	42	176	391	90	31	67
30	17	11	9.0	8.0	---	7.0	50	176	374	84	28	66
31	15	---	9.0	8.0	---	7.0	---	159	---	74	27	---
TOTAL	635	389	311.0	254.0	196.0	189.4	497.1	2772	8179	5085	1292	1424
MEAN	20.5	13.0	10.0	8.19	7.00	6.11	16.6	89.4	273	164	41.7	47.5
MAX	37	15	11	9.0	7.0	7.0	50	176	391	371	68	81
MIN	13	11	9.0	8.0	7.0	5.4	7.0	53	154	74	26	25
AC-FT	1260	772	617	504	389	376	986	5500	16220	10090	2560	2820

CAL YR 1981 TOTAL 11488.1 MEAN 31.5 MAX 292 MIN 3.5 AC-FT 22790
WTR YR 1982 TOTAL 21223.5 MEAN 58.1 MAX 391 MIN 5.4 AC-FT 42100

09011000 COLORADO RIVER NEAR GRAND LAKE, CO

LOCATION.--Lat 40°13'08", long 105°51'25", in NE¼SW¼ sec.13, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 200 ft (61 m) downstream from bridge on U.S. Highway 34, 400 ft (120 m) upstream from high-water line of Shadow Mountain Lake at elevation 8,367 ft (2,550.3 m), and 3.0 mi (4.8 km) southwest of town of Grand Lake.

DRAINAGE AREA.--102 mi^2 (264 km^2).

PERIOD OF RECORD.--Streamflow records, July 1904 to September 1918, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as Grand River (North Fork) near Grand Lake 1904 and as North Fork of Grand River near Grand Lake 1905-18. Water-quality data available 1970 to 1978.

REVISED RECORDS.--WSP 1213: 1914. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,380 ft (2,554 m), from topographic map. Prior to June 15, 1934, nonrecording gage at present site and datum. June 15, 1934, to Sept. 26, 1944, water-stage recorder at site 1,100 ft (340 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 200 acres (809,000 m^2) of hay meadows above station and about 2,000 acres (8.09 km^2) below. Transmountain diversion above station by Grand River ditch through La Poudre Pass to Cache la Poudre River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--63 years (water years 1905-18, 1934-82), 88.6 ft^3/s (2.509 m^3/s), 64,190 acre-ft/yr (79.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,840 ft^3/s (52.1 m^3/s) June 15, 16, 1918, gage height, 7.0 ft (2.13 m), from rating curve extended above 1,100 ft^3/s (31 m^3/s); maximum gage height, 8.21 ft (2.502 m) Apr. 20, 1971 (backwater from ice); minimum daily discharge, 1.7 ft^3/s (0.048 m^3/s) July 18, 19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 362 ft^3/s (10.3 m^3/s) at 0800 June 29, gage height, 5.47 ft (1.667); minimum daily, 7.8 ft^3/s (0.22 m^3/s) July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	25	21	16	14	14	16	109	153	336	25	35
2	19	25	20	17	14	14	16	142	150	321	74	30
3	20	25	19	17	14	14	16	154	119	281	74	28
4	25	24	18	16	14	14	16	191	105	260	77	27
5	39	24	18	16	14	14	16	168	120	240	82	34
6	33	24	18	16	14	14	16	114	169	220	67	44
7	29	23	18	16	14	14	16	98	165	169	59	38
8	28	24	18	16	14	14	19	90	187	141	53	37
9	30	24	17	16	14	14	19	94	195	133	53	44
10	27	24	16	16	14	14	20	100	205	140	53	38
11	27	24	16	16	14	14	20	100	188	117	57	37
12	32	28	17	16	14	14	19	99	182	106	52	62
13	35	29	17	16	14	14	21	105	194	102	60	56
14	34	22	17	16	14	15	29	94	215	101	63	67
15	33	23	17	16	14	15	33	85	196	81	55	61
16	34	23	17	16	14	15	30	88	195	62	52	60
17	33	22	17	16	14	16	39	93	238	50	47	50
18	31	22	17	16	14	15	42	93	294	57	49	49
19	32	24	17	16	14	15	33	101	266	44	46	47
20	29	23	17	16	14	15	44	107	268	28	44	48
21	28	23	17	16	14	13	46	89	260	20	43	54
22	27	22	17	16	14	14	45	82	257	12	43	55
23	24	21	17	16	14	14	50	104	261	8.9	43	69
24	24	22	17	16	14	15	49	115	276	7.8	37	63
25	24	22	17	16	15	15	51	111	297	8.3	35	58
26	29	22	17	16	15	15	57	110	295	16	34	83
27	29	22	17	16	15	15	58	119	273	11	34	77
28	26	22	17	16	14	16	55	128	305	11	33	70
29	27	22	17	16	---	16	67	162	338	11	37	74
30	27	22	16	16	---	16	77	169	335	13	39	75
31	26	---	16	15	---	16	---	149	---	8.6	35	---
TOTAL	881	702	537	497	395	453	1035	3563	6701	3116.6	1555	1570
MEAN	28.4	23.4	17.3	16.0	14.1	14.6	34.5	115	223	101	50.2	52.3
MAX	39	29	21	17	15	16	77	191	338	336	82	83
MIN	19	21	16	15	14	13	16	82	105	7.8	25	27
AC-FT	1750	1390	1070	986	783	899	2050	7070	13290	6180	3080	3110

CAL YR 1981 TOTAL 9021.6 MEAN 24.7 MAX 261 MIN 4.0 AC-FT 17890
WTR YR 1982 TOTAL 21005.6 MEAN 57.5 MAX 338 MIN 7.8 AC-FT 41660

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO

LOCATION.--Lat 40°19'40", long 105°34'39", in SW¼NW¼ sec.9, T.4 N., R.73 W., Larimer County, Hydrologic Unit 10190006, on right bank at upstream end of Aspen Creek siphon, 700 ft (210 m) downstream from east portal, and 4.5 mi (7.2 km) southwest of Estes Park.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only for August and September 1947).

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,250 ft (2,515 m), from topographic map. Prior to Oct. 1, 1950, water-stage recorder and Parshall flume at different datum. Oct. 1, 1950, to Sept. 30, 1952, water-stage recorder and Cippoletti weir at different datum.

REMARKS.--Records excellent. This is a transmountain diversion from Grand Lake and Shadow Mountain Lake for power and irrigation developments in the South Platte River basin as part of the Colorado-Big Thompson project. Diversion point is at west portal near town of Grand Lake, 13.35 mi (21.48 km) west of east portal.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years, 274 ft^3/s (7.760 m^3/s), 198,500 acre-ft/yr (245 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 592 ft^3/s (16.8 m^3/s) June 30, 1962; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	414	325	457	372	555	498	551	552	492	.00	260	265
2	481	335	396	391	551	533	553	388	429	12	198	21
3	331	335	442	410	498	536	548	513	115	.10	354	144
4	298	318	462	487	553	494	548	422	38	.10	518	347
5	447	329	516	479	483	548	548	414	98	.30	324	492
6	377	342	444	487	531	568	551	452	92	181	102	257
7	425	317	443	508	481	500	551	550	.60	116	135	314
8	437	322	496	487	483	485	548	550	94	118	395	305
9	443	331	500	481	475	483	548	526	96	250	43	395
10	370	353	483	398	479	483	551	515	202	319	142	357
11	350	391	485	506	487	479	548	550	98	249	144	165
12	437	333	542	473	485	479	551	550	49	272	150	220
13	435	315	473	491	417	479	551	414	.00	294	331	201
14	344	345	544	498	423	375	553	547	.00	160	274	84
15	375	292	546	510	510	475	551	552	.00	239	223	127
16	357	386	544	502	506	553	551	554	.00	83	265	148
17	383	421	485	394	504	551	546	552	.00	82	213	64
18	387	400	483	498	483	551	13	549	.00	.10	204	54
19	383	401	485	508	481	551	.56	494	.00	.40	322	84
20	394	394	483	521	531	494	.33	447	.00	.60	300	241
21	368	390	481	498	372	287	.33	447	.00	129	186	239
22	368	327	481	566	494	282	.39	447	.00	206	218	275
23	512	419	489	540	364	299	97	463	.00	203	195	266
24	374	424	496	386	483	551	1.2	460	.00	201	202	245
25	388	424	491	557	435	553	.62	380	.00	201	342	174
26	429	443	408	557	481	391	1.0	452	.00	200	261	178
27	461	444	389	525	496	551	.58	420	.00	200	188	34
28	445	414	491	523	361	389	.58	378	.00	74	215	33
29	408	397	551	521	---	553	.48	197	.00	176	150	.60
30	353	414	523	521	---	548	213	298	.00	198	144	.30
31	346	---	544	491	---	551	---	449	---	289	140	---
TOTAL	12320	11081	15053	15086	13402	15070	9677.07	14482	1803.60	4453.60	7138	5729.90
MEAN	397	369	486	487	479	486	323	467	60.1	144	230	191
MAX	512	444	551	566	555	568	553	554	492	319	518	492
MIN	298	292	389	372	361	282	.33	197	.00	.00	43	.30
AC-FT	24440	21980	29860	29920	26580	29890	19190	28730	3580	8830	14160	11370

CAL YR 1981 TOTAL 140609.20 MEAN 385 MAX 551 MIN .00 AC-FT 278900
WTR YR 1982 TOTAL 125296.17 MEAN 343 MAX 568 MIN .00 AC-FT 248500

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Field data collected prior to 1974 water year are available in district office.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 08...	1100	487	52	49	7.4	10.0	8.4	20	6.0	1.1
NOV 18...	0845	487	44	42	6.8	5.0	8.4	20	6.0	1.1
DEC 16...	0945	544	70	58	6.7	2.5	9.1	23	7.2	1.3
JAN 21...	1300	566	70	68	7.2	2.0	9.5	24	7.2	1.4
FEB 25...	1000	502	60	63	6.7	1.5	8.7	24	7.2	1.4
MAR 25...	1100	555	66	68	6.9	2.0	--	27	8.2	1.6
APR 15...	1455	548	60	60	7.1	2.5	8.8	24	7.3	1.3
MAY 21...	0820	383	63	57	6.9	5.5	9.0	22	6.7	1.2
JUN 08...	1000	188	46	50	6.6	7.5	8.4	17	5.3	1.0
JUL 19...	1500	4.5	40	33	7.4	12.0	8.5	9	2.4	.7
AUG 16...	1415	400	21	26	7.6	17.5	7.5	8	2.5	.5
SEP 16...	1320	197	33	33	6.8	13.0	7.7	13	3.9	.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT 08...	1.9	.2	.6	23	<5.0	.4	.2	3.1	--	--
NOV 18...	1.9	.2	.8	19	<5.0	.5	.2	3.1	--	--
DEC 16...	2.3	.2	.8	25	6.4	.5	.2	2.9	37	54.3
JAN 21...	2.0	.2	.9	28	5.0	.7	.2	2.5	37	56.5
FEB 25...	2.8	.3	.8	28	5.0	.4	.2	2.3	37	50.1
MAR 25...	2.7	.2	1.0	28	5.0	.4	.2	2.5	39	58.4
APR 15...	2.6	.2	.7	31	5.0	.4	.2	2.6	39	57.7
MAY 21...	2.2	.2	.9	25	5.0	.4	.2	2.9	35	36.2
JUN 08...	2.3	.3	.8	21	<5.0	.6	.2	4.3	--	--
JUL 19...	2.6	.4	.5	16	6.0	.4	.2	10	32	.39
AUG 16...	1.2	.2	.3	12	<5.0	.3	.1	3.0	--	--
SEP 16...	1.4	.2	.4	12	<5.0	.4	.1	3.5	--	--

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	NICKEL, DIS-SOLVED (UG/L AS NI)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT										
08...	<.10	<.10	.79	<1	1	11	1	1	0	3
NOV										
18...	<.09	<.09	.55	<1	2	14	1	<1	<1	<3
DEC										
16...	<.10	<.10	.53	--	--	17	--	1	--	--
JAN										
21...	<.09	<.09	.49	<1	<1	25	<1	2	<1	<3
FEB										
25...	<.10	<.10	.78	--	--	14	--	2	--	--
MAR										
25...	<.10	.11	.56	--	--	17	--	3	--	--
APR										
15...	<.10	<.10	.44	<3	<1	18	<1	<3	<1	<12
MAY										
21...	<.10	<.10	.87	--	--	64	--	<3	--	--
JUN										
08...	<.10	<.10	--	<1	1	57	<1	1	1	<3
JUL										
19...	<.10	<.10	2.40	--	--	48	--	5	--	--
AUG										
16...	<.10	<.10	.90	--	--	33	--	1	--	--
SEP										
16...	<.10	<.10	.80	--	--	34	--	<1	--	--

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'26", long 105°50'27", in SW¼NW¼ sec.19, T.3 N., R.75 W., Grand County, Hydrologic Unit 14010001, in gate house on left side of outlet gates near center of Shadow Mountain Dam on Colorado River, 1.0 mi (1.6 km) upstream from Pole Creek and 3.2 mi (5.1 km) south of town of Grand Lake.

DRAINAGE AREA.--185 mi² (479 km²).

PERIOD OF RECORD.--April 1947 to current year. Prior to October 1960, published as Shadow Mountain Reservoir near Grand Lake.

REVISED RECORDS.--WSP 1149: 1947-48. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Supplementary water-stage recorder on Grand Lake, 800 ft (240 m) north of outlet gates and 2.9 mi (4.7 km) north of Shadow Mountain Dam.

REMARKS.--Lake is formed by earth and rockfill dam and dikes. Storage began in April 1947. Capacity, 17,860 acre-ft (22.0 hm³), including usable capacity of Grand Lake above elevation 8,365 ft (2,549.7 m) between elevation 8,347 ft (2,544.2 m), sill of outlet gate, and 8,367 ft (2,550.3 m), maximum water surface. Dead storage in Shadow Mountain Lake, 506 acre-ft (624,000 m³). Dead storage in Grand Lake not determined. Shadow Mountain Lake is used for stabilization of water level in Grand Lake. Usable capacity for diversion through Alva B. Adams tunnel, 3,660 acre-ft (4.51 hm³) between elevations 8,365 ft (2,549.7 m), crest of tunnel inlet, and 8,367 ft (2,550.3 m), maximum water surface. Figures given represent usable contents as determined from summation of individual contents of Grand Lake and Shadow Mountain Lake. Transmountain diversion from Colorado River basin, including water pumped from Lake Granby, is effected through Grand Lake and Alva B. Adams tunnel, for power and irrigation in South Platte River basin.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,920 acre-ft (22.1 hm³) May 22, 1955, elevation, 8,367.03 ft (2,550.271 m); minimum since appreciable storage was first attained, 2,630 acre-ft (3.24 hm³) May 14, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,890 acre-ft (22.1 hm³) Nov. 26, elevation, 8,367.03 ft (2,550.271 m); minimum, 16,290 acre-ft (20.1 hm³) June 28, elevation, 8,366.03 ft (2,549.966 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,366.48	16,940	-
Oct. 31	8,366.72	17,390	+450
Nov. 30	8,366.69	17,270	-120
Dec. 31	8,366.77	17,410	+140
CAL YR 1981			+270
Jan. 31	8,366.81	17,500	+90
Feb. 28	8,366.78	17,430	-70
Mar. 31	8,366.73	17,350	-80
Apr. 30	8,366.72	17,290	-60
May 31	8,366.34	16,670	-620
June 30	8,366.25	16,660	-10
July 31	8,366.75	17,410	+750
Aug. 31	8,366.72	17,380	-30
Sept. 30	8,366.78	17,480	+100
WTR YR 1982			+540

09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'25", long 105°50'56", in SW¼NE¼ sec.24, T. 3 N., R.76 W., Grand County, Hydrologic Unit 14010001, at road crossing at south end of Shadow Mountain Lake, 4 mi southwest of Grand Lake, and 13.5 mi northeast of Granby.

PERIOD OF RECORD.--September 1970 to September 1975, March 1978 to current year.

REMARKS.--No flow for April, June, and July of 1982 water year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
OCT												
02...	0740	670	70	6.3	9.0	2.4	K10	<1	.19	.36	.55	.020
NOV												
20...	0730	999	65	6.4	6.0	7.6	K13	<1	<.09	1.10	--	.010
DEC												
30...	1700	334	65	6.8	2.0	9.5	K4	<1	<.09	.47	--	.020
JAN												
26...	1045	649	60	6.8	2.0	8.8	K8	<1	<.09	.00	--	.010
FEB												
25...	1600	575	63	6.6	2.5	9.0	K3	<1	<.10	.73	--	<.010
MAR												
24...	0830	569	60	6.8	2.0	9.0	K14	<1	<.10	.47	--	.030
MAY												
11...	0730	295	58	6.8	4.5	9.8	K21	<1	<.10	.59	--	.040
AUG												
19...	0740	357	60	6.7	13.0	4.3	K13	<1	<.10	1.20	--	.090
SEP												
22...	0730	356	60	6.5	9.5	3.4	33	K1	.10	.40	.50	.020

K BASED ON NON-IDEAL COLONY COUNT.

09018500 LAKE GRANBY NEAR GRANBY, CO

LOCATION.--Lat 40°10'55", long 105°52'14", in NW¼NE¼ sec.35, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, in Granby pumping plant at north shore of lake, 2.5 mi (4.0 km) north of Granby Dam on Colorado River and 7.5 mi (12.1 km) northeast of Granby.

DRAINAGE AREA.--312 mi² (808 km²).

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1955, published as Granby Reservoir near Granby.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. Prior to Apr. 9, 1951, nonrecording gage at dam at present datum.

REMARKS.--Lake is formed by earthfill dam and dikes. Regulation began Sept. 13, 1949, and usuable storage began June 14, 1950, while dam was under construction. Usable capacity, 465,600 acre-ft (574 hm³) between elevations 8,186.00 ft (2,495.093 m), trash rack sill at outlet, and 8,280.00 ft (2,523.744 m), top of radial spillway gates. Dead storage, 74,190 acre-ft (91.5 hm³). Figures given represent usable contents. Lake is used to store water for pumping to Shadow Mountain Lake for transmountain diversion through Alva B. Adams tunnel for power and irrigation in South Platte River basin.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,900 acre-ft (574 hm³) July 13, 1962, elevation, 8,280.05 ft (2,523.759 m); minimum since appreciable storage was attained, 13,070 acre-ft (16.1 hm³) Apr. 16, 1978, elevation, 8,190.93 ft (2,496.595 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 272,600 acre-ft (336 hm³) Aug. 19, elevation, 8,250.62 ft (2,514.789 m); minimum, 108,200 acre-ft (133 hm³) Apr. 17, elevation, 8,218.00 ft (2,504.846 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,250.10	269,500	-
Oct. 31	8,246.40	248,300	-21,200
Nov. 30	8,243.44	231,700	-16,600
Dec. 31	8,238.34	204,300	-27,400
CAL YR 1981			-158,900
Jan. 31	8,232.94	176,700	-27,600
Feb. 28	8,227.70	151,400	-25,300
Mar. 31	8,221.55	123,500	-27,900
Apr. 30	8,219.02	112,500	-11,000
May 31	8,221.79	124,500	+12,000
June 30	8,241.75	222,500	+98,000
July 31	8,250.10	269,500	+47,000
Aug. 31	8,250.44	271,500	+2,000
Sept. 30	8,250.50	271,900	+400
WTR YR 1982			+2,400

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1973 to June 1975, June 1979, June 1980, July 1981, and June 1982.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	SAMPLING DEPTH (FEET)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUN				
17...	0845	139	5.0	5.5
17...	0915	.10	12.0	8.8
17...	0916	5.00	12.0	9.1
17...	0917	10.0	12.0	9.4
17...	0918	20.0	11.0	9.5
17...	0919	25.0	11.0	9.3
17...	0920	30.0	10.5	9.3
17...	0921	40.0	10.0	9.0
17...	0922	50.0	8.0	7.7
17...	0923	60.0	7.0	7.0
17...	0924	70.0	6.5	6.6

DATE	TIME	SAMPLING DEPTH (FEET)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUN				
17...	0925	75.0	6.0	6.4
17...	0926	80.0	6.0	6.4
17...	0927	90.0	6.0	6.4
17...	0928	100	5.5	6.2
17...	0929	110	5.5	6.0
17...	0930	120	5.5	5.8
17...	0931	125	5.5	5.8
17...	0932	130	5.5	5.7
17...	0933	138	5.0	5.5

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)
JUN									
17...	0845	139	72	6.7	5.0	5.5	<1	<1	<.10
17...	0915	.10	65	7.6	12.0	8.8	K2	<1	<.10

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, DISSOLVED (UG/L AS CU)	LEAD, DISSOLVED (UG/L AS PB)	NICKEL, DISSOLVED (UG/L AS NI)	ZINC, DISSOLVED (UG/L AS ZN)	PHYTOPLANKTON, TOTAL (CELLS PER ML)
JUN								
17...	.90	.100	<1	1	<1	<1	10	--
17...	.90	.040	<1	2	1	<1	10	8700

PHYTOPLANKTON ANALYSES, OCTOBER 1981 TO JUNE 1982

DATE	JUN 17,82
TIME	0915
TOTAL CELLS/ML	8700
DIVERSITY: DIVISION	0.6
.CLASS	0.6
..ORDER	1.9
...FAMILY	2.0
....GENUS	2.2

ORGANISM	CELLS /ML	PER- CENT
BACILLARIOPHYTA (DIATOMS)		
.BACILLARIOPHYCEAE		
..BACILLARIALES		
...NITZSCHIACEAE		
....NITZSCHIA	1400#	16
..EUPODISCALES		
...COSCINODISCACEAE		
....CYCLOTELLA	46	1
....MELOSIRA	3100#	35
..FRAGILARIALES		
...FRAGILARIACEAE		
....ASTERIONELLA	180	2
....SYNEDRA	2800#	33
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	46	1
....CHODATELLA	550	6
...SCENEDESMACEAE		
....SCENEDESMUS	550	6

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

09019000 COLORADO RIVER BELOW LAKE GRANBY, CO

LOCATION.--Lat 40°08'39", long 105°52'00", in SE¼SE¼ sec.11, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi (0.5 km) downstream from Granby Dam, 1.0 mi (1.6 km) upstream from Walden Hollow, and 5.0 mi (8.0 km) northeast of Granby.

DRAINAGE AREA.--312 mi^2 (808 km^2).

PERIOD OF RECORD.--October 1950 to September 1982 (discontinued). Prior to October 1955, published as "below Granby Reservoir."

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,050 ft (2,454 m), from topographic map.

REMARKS.--Records good. Seepage from Lake Granby, which varies from 2 to 8 ft^3/s (0.06 to 0.23 m^3/s) depending on elevation of Lake Granby, is not included in record. Flow completely regulated by Lake Granby (station 09018500). Several diversions for irrigation of hay meadows above station. Transmountain diversions by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--32 years, 44.4 ft^3/s (1.257 m^3/s) 32,170 acre-ft/yr (39.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft^3/s (43.0 m^3/s) June 27-30, 1971, gage height, 3.95 ft (1.204 m); maximum gage height, 4.09 ft (1.247 m) July 3, 1973; minimum daily discharge, 5.1 ft^3/s (0.14 m^3/s) Oct. 8, 9, 1970, Sept. 3, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 102 ft^3/s (2.89 m^3/s) at 0730 May 29 to 0800 June 1, gage height, 1.83 ft (0.558 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	20	21	22	21	20	20	63	97	67	89	23
2	19	20	21	22	21	20	20	65	92	67	50	16
3	19	20	21	22	21	21	20	65	90	69	33	16
4	19	20	21	22	21	21	20	65	91	70	33	16
5	19	20	21	22	21	21	20	65	91	70	33	16
6	19	20	21	22	21	21	20	65	91	70	33	16
7	19	21	21	21	21	21	20	65	89	85	33	16
8	19	21	21	21	21	21	20	65	88	92	33	15
9	19	21	21	21	21	21	20	65	88	89	32	14
10	19	21	21	21	21	21	20	65	86	88	32	14
11	18	21	21	21	21	21	20	67	85	88	30	14
12	18	21	21	21	20	21	20	69	86	86	30	14
13	19	21	21	21	20	21	20	70	86	84	30	14
14	18	21	21	21	20	21	20	70	84	84	30	13
15	18	21	21	21	20	21	20	70	93	84	30	12
16	18	21	21	21	20	21	20	70	94	85	26	12
17	18	21	21	21	20	20	20	70	97	85	23	12
18	18	21	21	21	20	20	20	70	95	85	23	12
19	19	21	21	21	20	20	20	70	90	85	28	12
20	19	21	21	21	20	20	20	71	88	85	34	12
21	19	21	21	21	20	20	20	71	88	88	34	12
22	19	21	21	21	20	20	20	71	89	89	34	12
23	20	21	21	21	20	20	20	71	89	89	35	13
24	20	21	21	21	20	20	20	82	89	89	37	12
25	20	21	21	21	20	20	20	86	89	89	37	12
26	20	21	22	21	20	20	20	84	89	89	37	13
27	20	21	22	21	20	20	20	84	89	89	37	13
28	20	21	22	21	20	20	20	90	89	89	37	11
29	20	21	22	21	---	20	21	100	89	89	38	11
30	20	21	22	21	---	20	43	102	72	89	38	11
31	20	---	22	21	---	20	---	102	---	89	38	---
TOTAL	591	624	657	657	571	634	624	2288	2673	2596	1087	409
MEAN	19.1	20.8	21.2	21.2	20.4	20.5	20.8	73.8	89.1	83.7	35.1	13.6
MAX	20	21	22	22	21	21	43	102	97	92	89	23
MIN	18	20	21	21	20	20	20	63	72	67	23	11
AC-FT	1170	1240	1300	1300	1130	1260	1240	4540	5300	5150	2160	811

CAL YR 1981 TOTAL 11595.4 MEAN 31.8 MAX 78 MIN 7.7 AC-FT 23000
WTR YR 1982 TOTAL 13411.0 MEAN 36.7 MAX 102 MIN 11 AC-FT 26600

09019500 COLORADO RIVER NEAR GRANBY, CO

LOCATION.--Lat 40°07'15", long 105°54'00", in SW¼NW¼ sec.22, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi (0.5 km) upstream from bridge on U.S. Highway 34, 1.3 mi (2.1 km) upstream from Willow Creek, and 3.2 mi (5.1 km) northeast of Granby.

DRAINAGE AREA.--323 mi² (837 km²).

PERIOD OF RECORD.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953, May 1961 to current year (irrigation season only). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,960 ft (2,426 m), from topographic map. June 10, 1908, to Sept. 30, 1911, and May 12 to June 10, 1934, nonrecording gage, at site 300 ft (91 m) upstream at different datums. June 11, 1934, to Sept. 30, 1953, water-stage recorder at present site and datum.

REMARKS.--Records good. Flow regulated by Lake Granby (station 09018500) since Sept. 13, 1949. Several diversions for irrigation of hay meadows above station. Transmountain diversions above station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF SEASONAL RECORD.--Maximum discharge, 1,460 ft³/s (41.3 m³/s) July 1, 1973, gage height, 4.25 ft (1.295 m); minimum daily, 9.6 ft³/s (0.27 m³/s) Sept. 21, 1981.

EXTREMES FOR PERIOD OF CONTINUOUS RECORD.--Maximum discharge observed, 4,100 ft³/s (116 m³/s) June 20, 1909, gage height, 5.5 ft (1.68 m), site and datum then in use; minimum daily, 6.6 ft³/s (0.19 m³/s) Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 ft³/s (0.57 m³/s) Apr. 6, 1936 (discharge measurement).

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 102 ft³/s (2.89 m³/s) at 1430 June 18, gage height, 1.23 ft (0.375 m); minimum daily, 17 ft³/s (0.48 m³/s) Sept. 15, 16, 19-22, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	67	76	70	62	27
2							---	70	74	67	42	20
3							---	70	75	68	30	19
4							---	72	74	70	30	20
5							---	72	74	68	30	20
6							---	70	76	72	30	20
7							---	70	76	71	30	20
8							---	70	72	72	30	20
9							---	70	72	71	30	19
10							---	68	72	70	30	19
11							---	71	72	72	29	20
12							---	75	71	71	28	20
13							---	76	70	70	29	20
14							---	75	66	68	30	18
15							---	75	70	68	28	17
16							23	76	71	68	28	17
17							29	75	78	67	27	18
18							23	74	91	68	27	18
19							23	72	74	66	30	17
20							24	72	66	63	38	17
21							28	72	67	63	37	17
22							22	72	71	67	36	17
23							23	74	71	67	38	18
24							25	78	70	65	39	18
25							27	78	71	65	39	18
26							27	75	71	65	39	18
27							27	74	71	63	39	18
28							29	74	72	63	39	18
29							28	74	72	66	39	17
30							46	76	75	65	39	17
31							---	81	---	62	39	---
TOTAL							---	2268	2181	2091	1061	562
MEAN							---	73.2	72.7	67.5	34.2	18.7
MAX							---	81	91	72	62	27
MIN							---	67	66	62	27	17
AC-FT							---	4500	4330	4150	2100	1110

09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

LOCATION.--Lat 40°08'49", long 105°56'31", in SE¼ sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, in shaft house near right end of Willow Creek Dam, 3.2 mi (5.1 km) upstream from mouth, and 4.2 mi (6.8 km) north of Granby.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--May 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by earth and rockfill dam; storage began March 1953. Dead storage pool filled May 3, 1953. Usable capacity, 9,060 acre-ft (11.2 hm³) between elevations 8,077.00 ft (2,461.870 m), trash rack sill at outlet, and 8,130.00 ft (2,478.024 m), crest of spillway. Dead storage, 1,490 acre-ft (1.84 hm³). Figures given represent usable contents. Water is pumped to Lake Granby for transmountain diversion for irrigation and power in South Platte River basin. Records are furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,060 acre-ft (11.2 hm³) Aug. 3, 1953, elevation, 8,129.99 ft (2,478.021 m); minimum since first filling to spillway, 1,470 acre-ft (1.81 hm³) Apr. 24, 1974, elevation, 8,090.14 ft (2,465.875 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,660 acre-ft (10.7 hm³) Nov. 10, 11, elevation, 8,128.65 ft (2,477.597 m); minimum, 5,650 acre-ft (6.97 hm³) Nov. 17, elevation, 8,116.56 ft (2,473.940 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,126.35	8,010	-
Oct. 31	8,128.21	8,540	+530
Nov. 30	8,117.25	5,790	-2,750
Dec. 31	8,118.52	6,070	+280
CAL YR 1981		-	-30
Jan. 31	8,119.80	6,360	+290
Feb. 28	8,120.66	6,560	+200
Mar. 31	8,122.25	6,940	+380
Apr. 30	8,120.29	6,470	-470
May 31	8,127.08	8,210	+1,740
June 30	8,122.92	7,110	-1,100
July 31	8,120.32	6,480	-630
Aug. 31	8,127.45	8,320	+1,840
Sept. 30	8,125.72	7,840	-480
WTR YR 1982			-170

09021000 WILLOW CREEK BELOW WILLOW CREEK RESERVOIR, CO

LOCATION.--Lat 40°08'45", long 105°56'22", in SE¼ sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 1,000 ft (300 m) downstream from Willow Creek Dam, 0.8 mi (1.3 km) upstream from Bunte Highline Canal diversion, 4.0 mi (6.4 km) upstream from mouth, and 4.0 mi (6.4 km) north of Granby.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--August 1953 to September 1982 (discontinued).

REVISED RECORDS.--WSP 1563: 1954-55.

GAGE.--Water-stage recorder and 10 ft (3 m) Parshall flume with overflow weirs. Datum of gage is 8,023.64 ft (2,445.605 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Supplementary water-stage recorder and Parshall flume on McQueary ditch 500 ft (150 m) downstream from point of diversion at Willow Creek Dam. Datum of gage is 8,031.68 ft (2,448.056 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for winter period, which are poor. Records show combined flow of creek and McQueary ditch. Flow completely regulated by Willow Creek Reservoir (station 09020700). Diversions above station for irrigation of hay meadows. McQueary ditch diverts at Willow Creek Dam for irrigation below station. Diversion above station from Willow Creek Reservoir by Willow Creek Pump Canal to Lake Granby as part of the Colorado-Big Thompson project (see table below for figures of diversion). Prior to Oct. 1, 1962, records include priming and waste water from pump canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, by Willow Creek Pump Canal; furnished by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE (COMBINED FLOW).--29 years, 27.9 ft³/s (0.791 m³/s), 20,210 acre-ft/yr (24.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (COMBINED FLOW).--Maximum discharge, 867 ft³/s (24.6 m³/s) June 7, 1957, no flow Sept. 17-24, 1963, May 1, 1965, May 2-10, Aug. 16-21, 1969.

EXTREMES FOR CURRENT YEAR (COMBINED FLOW).--Maximum discharge, 54 ft³/s (1.53 m³/s) at 1100 June 7, minimum daily, 0.08 ft³/s (0.002 m³/s) July 31, Aug. 1, 5-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	9.8	46	.08	.23
2	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	21	46	.14	.23
3	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	21	46	.14	.23
4	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.33	21	46	.14	.23
5	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.33	22	46	.08	.23
6	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	22	46	.08	.33
7	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	30	46	.08	.33
8	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	38	46	.08	.33
9	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	44	47	.08	.33
10	7.0	6.5	6.5	6.5	6.5	6.8	6.8	.23	47	47	.08	.33
11	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	47	47	.08	.33
12	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	48	47	.08	.33
13	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	48	46	.08	.33
14	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	48	46	.08	.33
15	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	48	46	.08	.33
16	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	47	47	.08	.33
17	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	47	47	.08	.33
18	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.33	47	47	.08	.33
19	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	47	42	.14	.33
20	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.23	47	39	.14	.33
21	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.14	47	39	.14	.33
22	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.14	47	39	.14	.33
23	7.0	6.5	6.5	6.5	6.8	6.5	6.8	.14	46	40	.23	.44
24	7.0	6.5	6.5	6.5	6.8	6.5	7.0	.14	46	39	.23	.44
25	7.0	6.5	6.5	6.5	6.8	6.5	7.0	.14	46	39	.23	.44
26	6.5	6.5	6.5	6.5	6.8	6.5	7.0	.14	46	11	.14	.44
27	6.5	6.5	6.5	6.5	6.8	6.5	7.0	.14	47	.14	.14	.44
28	6.5	6.5	6.5	6.5	6.8	6.5	7.0	.14	47	.14	.14	.33
29	6.5	6.5	6.5	6.5	---	6.5	7.0	.33	47	.14	.14	.33
30	6.5	6.5	6.5	6.5	---	6.5	1.9	.44	46	.14	.14	.33
31	6.5	---	6.5	6.5	---	6.5	---	.44	---	.08	.14	---
TOTAL	214.0	195.0	201.5	201.5	187.4	204.5	200.3	7.23	1214.8	1123.64	3.71	9.95
MEAN	6.90	6.50	6.50	6.50	6.69	6.60	6.68	.23	40.5	36.2	.12	.33
MAX	7.0	6.5	6.5	6.5	6.8	6.8	7.0	.44	48	47	.23	.44
MIN	6.5	6.5	6.5	6.5	6.5	6.5	1.9	.14	9.8	.08	.08	.23
AC-FT	424	387	400	400	372	406	397	14	2410	2230	7.4	20
a	0	2980	0	0	0	0	2190	15140	20900	4860	0	1840

CAL YR 1981 TOTAL 5644.65 MEAN 15.5 MAX 53 MIN .08 AC-FT 11200
WTR YR 1982 TOTAL 3763.53 MEAN 10.3 MAX 48 MIN .08 AC-FT 7460

NOTE.--NO GAGE-HEIGHT RECORD OCT. 2 TO APR. 26.

a DIVERSIONS, IN ACRE-FEET, BY WILLOW CREEK PUMP CANAL, FURNISHED BY U.S. BUREAU OF RECLAMATION.

09024000 FRASER RIVER NEAR WINTER PARK, CO

LOCATION.--Lat 39°54'00", long 105°46'34", in SE¼ sec.4, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft (152 m) downstream from bridge on U.S. Highway 40, 1.1 mi (1.8 km) northwest of Winter Park, 2.0 mi (3.2 km) upstream from Vasquez Creek, 3.5 mi (5.6 km) downstream from point of diversion for Moffat water tunnel, and 3.9 mi (6.3 km) southeast of Fraser.

DRAINAGE AREA.--27.6 mi² (71.5 km²).

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39. Records since June 9, 1936, equivalent to earlier records if transmountain diversions are added to flow past station.

REVISED RECORDS.--WSP 929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,906.23 ft (2,714.619 m) Colorado State Highway Datum (levels by U.S. Geological Survey). Sept. 23, 1910, to May 12, 1916, nonrecording gage at trail bridge 0.6 mi (1.0 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s (23.2 m³/s) June 13, 1918, gage height, 2.9 ft (0.88 m); minimum daily determined, 2 ft³/s (0.06 m³/s) Mar. 30, Apr. 9, 1912, Jan 23, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 170 ft³/s (4.81 m³/s) at 1000 July 2, gage height, 1.89 ft (0.576 m); minimum daily, 3.3 ft³/s (0.093 m³/s) Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	4.2	3.7	4.0	4.0	4.0	5.0	11	22	104	8.9	8.3
2	5.5	4.5	3.7	4.0	4.0	4.0	5.0	12	23	139	9.7	8.2
3	6.0	4.4	3.6	4.0	4.0	4.0	5.0	12	23	130	9.7	8.1
4	7.7	4.3	3.7	4.0	4.0	4.0	5.0	13	25	92	9.3	8.1
5	15	4.6	3.8	4.0	3.5	4.0	5.0	11	27	71	9.1	12
6	13	4.4	3.6	4.0	3.5	4.0	5.0	9.0	29	56	9.5	10
7	13	4.2	3.6	4.0	3.5	4.0	5.1	8.1	27	37	10	9.7
8	13	4.0	3.5	4.0	3.3	4.0	13	8.7	27	27	9.9	9.6
9	12	4.0	3.6	4.0	3.5	4.0	5.5	11	27	42	9.8	9.2
10	7.0	4.0	3.5	4.0	3.5	4.0	6.7	11	28	53	9.6	9.0
11	6.1	4.0	3.5	4.0	3.5	4.5	6.3	10	32	35	11	9.0
12	6.0	4.0	3.6	4.0	3.5	4.5	5.5	11	31	20	13	8.4
13	5.6	4.0	3.6	4.0	3.5	4.5	5.7	10	31	16	9.4	7.8
14	5.7	4.1	3.6	4.0	3.5	4.5	6.4	8.7	28	42	9.1	7.7
15	5.3	3.6	3.6	4.0	3.5	4.5	6.2	8.7	25	33	8.7	7.1
16	5.4	3.7	3.6	4.0	3.5	4.5	5.7	9.0	26	12	8.6	4.4
17	5.3	3.7	3.6	4.0	3.5	4.5	9.0	10	27	23	9.3	4.0
18	5.3	3.8	3.6	4.5	3.5	4.5	6.4	12	33	16	9.1	3.9
19	5.1	3.7	3.6	4.5	3.5	4.5	6.2	12	27	11	9.4	4.5
20	5.0	3.7	3.7	4.5	3.5	4.5	7.3	12	26	10	9.7	4.7
21	4.8	3.6	3.7	4.5	3.5	4.5	8.4	14	28	9.0	9.0	4.3
22	4.5	3.6	3.6	4.5	3.5	4.5	7.0	15	25	8.8	9.0	4.1
23	4.7	3.7	3.6	4.5	3.5	4.5	6.4	16	24	8.7	8.9	4.1
24	4.4	3.7	3.6	4.5	3.5	5.0	6.2	17	27	8.7	8.7	4.0
25	4.4	3.8	3.6	4.5	3.5	5.0	7.3	16	30	8.3	8.7	3.9
26	4.4	3.7	3.6	4.5	3.5	5.0	7.3	18	23	9.5	8.6	3.9
27	4.4	3.7	3.6	4.5	3.5	5.0	7.0	20	24	11	8.6	3.9
28	4.4	3.7	3.6	4.5	4.0	5.0	7.6	22	28	13	8.6	3.9
29	4.2	3.7	3.6	4.5	---	5.0	8.1	22	35	37	8.7	3.8
30	4.2	3.8	3.6	4.0	---	5.0	9.0	22	58	26	8.6	3.7
31	5.1	---	4.0	4.0	---	5.0	---	22	---	8.8	8.4	---
TOTAL	201.5	117.9	112.4	130.0	100.3	138.5	199.3	414.2	846	1117.8	288.6	193.3
MEAN	6.50	3.93	3.63	4.19	3.58	4.47	6.64	13.4	28.2	36.1	9.31	6.44
MAX	15	4.6	4.0	4.5	4.0	5.0	13	22	58	139	13	12
MIN	4.2	3.6	3.5	4.0	3.3	4.0	5.0	8.1	22	8.3	8.4	3.7
AC-FT	400	234	223	258	199	275	395	822	1680	2220	572	383

CAL YR 1981 TOTAL 2544.7 MEAN 6.97 MAX 42 MIN 3.1 AC-FT 5050
WTR YR 1982 TOTAL 3859.8 MEAN 10.6 MAX 139 MIN 3.3 AC-FT 7660

09025000 VASQUEZ CREEK NEAR WINTER PARK, CO

LOCATION.--Lat 39°55'13", long 105°47'05", in NE¼NW¼ sec.33, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 30 ft (9.1 m) downstream from bridge on U.S. Highway 40, 0.2 mi (0.3 km) upstream from mouth, 2.5 mi (4.0 km) northwest of Winter Park, 2.5 mi (4.0 km) southeast of Fraser, and 4.5 mi (7.2 km) downstream from Moffat water tunnel diversion.

DRAINAGE AREA.--27.8 mi² (72.0 km²).

PERIOD OF RECORD.--June to August 1907, July to November 1909, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for June to October 1908, published in WSP 269, are unreliable and should not be used. Published as Vasquez River at lower station, near Fraser 1907-9, and as "near West Portal" 1934-39. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,768.48 ft (2,672.633 m) National Geodetic Vertical Datum of 1929. June 1, 1907, to Oct. 31, 1909, nonrecording gage at site 0.8 mi (1.3 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s (13.3 m³/s) June 10, 1952, gage height, 3.13 ft (0.954 m), from rating curve extended above 340 ft³/s (9.6 m³/s); no flow at times in 1944, 1946, 1956, 1960, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 121 ft³/s (3.43 m³/s) at 2200 July 2, gage height, 2.55 ft (0.777 m); minimum daily discharge, 2.4 ft³/s (0.068 m³/s) Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.9	5.0	3.5	3.5	3.0	3.0	7.5	29	38	7.3	8.9
2	4.0	4.4	5.0	3.5	3.5	3.0	3.0	10	29	72	8.3	9.0
3	4.4	2.4	5.0	3.5	3.5	3.0	3.0	11	28	97	8.7	9.2
4	9.1	2.6	5.0	3.5	3.5	3.0	3.0	13	25	93	9.3	9.2
5	13	2.8	5.0	3.5	3.5	3.0	3.1	11	25	81	8.8	11
6	11	2.9	4.0	3.5	3.5	2.8	3.2	9.0	24	54	8.8	9.9
7	9.8	3.1	4.0	3.5	3.5	3.0	3.4	9.0	22	9.3	9.0	9.4
8	9.6	3.3	4.0	3.5	3.5	3.0	3.8	10	21	11	9.1	9.4
9	10	3.5	4.0	3.5	3.5	3.0	4.0	13	20	20	9.4	9.2
10	6.0	3.7	4.0	3.5	3.5	3.0	4.1	14	19	33	9.2	9.7
11	5.4	3.9	4.0	3.5	3.5	3.0	4.2	12	18	30	10	10
12	5.5	4.2	4.0	3.5	3.5	3.0	4.3	13	15	20	11	11
13	5.4	4.5	4.0	3.5	3.5	3.0	4.5	9.5	14	8.3	10	10
14	5.7	4.7	4.0	3.5	3.5	3.0	5.0	9.0	16	19	9.9	10
15	5.6	5.0	4.0	3.5	3.5	3.0	5.1	8.0	15	21	9.9	9.7
16	5.7	5.0	4.0	3.5	3.5	3.0	4.7	8.0	15	8.3	9.5	5.4
17	5.9	5.0	4.0	3.5	3.5	3.0	5.9	11	14	8.1	9.7	4.7
18	5.8	5.0	4.0	3.5	3.5	3.0	5.5	18	16	8.2	9.6	3.9
19	5.4	5.0	4.0	3.5	3.5	3.0	5.3	19	13	8.3	9.6	3.4
20	5.0	5.0	4.0	3.5	3.5	3.0	5.5	19	14	7.1	9.4	4.1
21	5.1	5.0	4.0	3.5	3.5	3.0	5.0	21	12	7.4	9.2	4.1
22	4.6	5.0	4.0	3.5	3.5	3.0	5.2	23	20	7.4	9.4	3.4
23	3.5	5.0	4.0	3.5	3.5	3.0	5.8	25	13	7.0	9.4	2.8
24	3.7	5.0	4.0	3.5	3.5	3.0	4.5	26	10	6.9	9.3	2.8
25	3.6	5.0	4.0	3.5	3.5	3.0	4.9	25	12	6.6	9.3	2.7
26	4.2	5.0	4.0	3.5	3.5	3.0	4.9	25	8.4	6.9	9.8	2.6
27	4.4	5.0	4.0	3.5	3.5	3.0	4.9	26	12	6.8	9.4	2.7
28	4.3	5.0	4.0	3.5	3.5	3.0	5.6	31	16	8.2	9.6	3.5
29	3.8	5.0	4.0	3.5	---	3.0	5.6	34	16	55	9.7	3.6
30	3.7	5.0	4.0	3.5	---	3.0	5.9	32	15	51	9.3	3.9
31	4.0	---	4.0	3.5	---	3.0	---	32	---	7.5	9.3	---
TOTAL	181.3	129.9	129.0	108.5	98.0	92.8	135.9	534.0	526.4	817.3	290.2	199.2
MEAN	5.85	4.33	4.16	3.50	3.50	2.99	4.53	17.2	17.5	26.4	9.36	6.64
MAX	13	5.0	5.0	3.5	3.5	3.0	5.9	34	29	97	11	11
MIN	3.5	2.4	4.0	3.5	3.5	2.8	3.0	7.5	8.4	6.6	7.3	2.6
AC-FT	360	258	256	215	194	184	270	1060	1040	1620	576	395

CAL YR 1981 TOTAL 2533.6 MEAN 6.94 MAX 19 MIN 2.4 AC-FT 5030
WTR YR 1982 TOTAL 3242.5 MEAN 8.88 MAX 97 MIN 2.4 AC-FT 6430

NOTE.--NO GAGE-HEIGHT RECORD DEC. 9 TO APRIL 6.

09025400 ELK CREEK NEAR FRASER, CO

LOCATION.--Lat 39°55'09", long 105°49'31", in SE¼NW¼ sec.31, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 100 ft (30 m) upstream from unnamed tributary 1,150 ft (350 m) downstream from West Elk Creek, 2.0 mi (3.2 km) southwest of Fraser, and 2.5 mi (4.0 km) upstream from mouth.

DRAINAGE AREA.--7.15 mi² (18.52 km²).

PERIOD OF RECORD.--September 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,805 ft (2,684 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversions above station to Moffat water tunnel. Diversions for irrigation of about 100 acres (405,000 m²) of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 88 ft³/s (2.49 m³/s) May 8, 1974, gage height, 2.67 ft (0.814 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Jan. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s (0.96 m³/s) at 2000 July 4, gage height, 2.26 ft (0.689 m); minimum daily, 0.29 ft³/s (0.008 m³/s) Mar. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.91	.45	.50	.45	.35	.30	4.0	9.2	8.4	.87	1.5
2	.50	.80	.45	.50	.45	.35	.30	3.6	9.0	16	3.2	1.4
3	.50	.80	.45	.50	.45	.35	.30	4.4	8.8	28	3.3	1.4
4	.50	.80	.45	.50	.45	.35	.30	5.6	8.8	29	1.1	1.2
5	.50	.70	.45	.50	.45	.35	.30	5.1	9.8	26	2.4	2.3
6	.50	.70	.45	.50	.45	.35	.30	3.8	10	25	2.2	2.1
7	.50	.60	.45	.50	.45	.35	.30	3.3	11	22	2.1	1.6
8	.50	.54	.45	.50	.45	.35	.30	4.0	12	12	2.1	1.5
9	.50	.54	.45	.50	.45	.35	.30	5.8	13	6.0	2.4	1.6
10	.60	.50	.45	.50	.45	.35	.37	5.8	10	5.6	2.3	1.5
11	.60	.50	.45	.50	.45	.35	.44	4.7	5.6	4.9	2.2	1.6
12	.60	.50	.45	.50	.45	.35	.55	4.4	5.1	4.2	2.9	2.3
13	.60	.45	.45	.50	.45	.35	.55	3.8	4.2	3.8	3.2	2.1
14	.60	.45	.45	.50	.45	.35	.55	3.3	3.6	3.6	3.4	2.1
15	.60	.40	.45	.50	.45	.35	.62	2.9	3.4	3.4	2.3	1.9
16	.60	.40	.45	.50	.40	.35	.58	2.8	3.1	3.1	2.1	1.7
17	.60	.40	.45	.50	.40	.35	.55	2.9	2.8	2.8	2.0	1.5
18	.60	.40	.45	.50	.40	.35	.55	3.3	4.2	2.3	1.9	1.4
19	.60	.40	.45	.50	.40	.35	.58	3.3	3.3	2.6	2.2	1.5
20	.70	.43	.45	.50	.40	.35	.55	3.5	2.8	3.1	2.3	1.7
21	.70	.43	.45	.50	.40	.30	.51	4.5	2.4	3.1	2.0	1.5
22	.70	.40	.45	.50	.40	.29	.51	5.4	2.4	3.0	2.1	1.4
23	.70	.40	.45	.50	.40	.30	.62	6.4	2.8	3.0	2.0	1.4
24	.70	.40	.45	.50	.40	.30	.66	6.6	2.4	2.7	1.8	1.4
25	.80	.40	.45	.50	.40	.30	.70	6.4	2.3	1.6	1.7	1.4
26	.80	.37	.45	.50	.40	.30	.85	7.0	2.1	2.1	1.7	1.4
27	.80	.37	.45	.50	.40	.30	.85	8.2	2.0	2.3	1.6	1.3
28	.90	.40	.45	.50	.40	.30	.80	9.4	1.9	2.7	1.8	1.3
29	.97	.44	.45	.50	---	.30	1.2	10	1.7	4.0	1.8	1.4
30	1.0	.44	.45	.50	---	.30	1.7	9.6	1.7	3.7	1.8	1.3
31	1.4	---	.45	.50	---	.30	---	9.6	---	2.2	1.7	---
TOTAL	20.67	15.27	13.95	15.50	11.95	10.29	16.99	163.4	161.4	242.2	66.47	47.7
MEAN	.67	.51	.45	.50	.43	.33	.57	5.27	5.38	7.81	2.14	1.59
MAX	1.4	.91	.45	.50	.45	.35	1.7	10	13	29	3.4	2.3
MIN	.50	.37	.45	.50	.40	.29	.30	2.8	1.7	1.6	.87	1.2
AC-FT	41	30	28	31	24	20	34	324	320	480	132	95

CAL YR 1981 TOTAL 362.78 MEAN .99 MAX 4.5 MIN .30 AC-FT 720
WTR YR 1982 TOTAL 785.79 MEAN 2.15 MAX 29 MIN .29 AC-FT 1560

NOTE.--NO GAGE-HEIGHT RECORD DEC. 1 TO APR. 7.

FRASER RIVER BASIN

09026500 ST. LOUIS CREEK NEAR FRASER, CO

LOCATION.--Lat 39°54'36", long 105°52'40", in SE¼SW¼ sec.34, T.1 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 300 ft (91 m) downstream from West St. Louis Creek and 4.1 mi (6.6 km) southwest of Fraser.

DRAINAGE AREA.--32.9 mi^2 (85.2 km^2).

PERIOD OF RECORD.--October 1933 to current year. Prior to August 1934, monthly discharge only, published in WSP 1313. Records for May 1956 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,980.17 ft (2,737.156 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft^3/s (13.3 m^3/s) June 15, 1952, gage height, 2.89 ft (0.881 m); maximum gage height, 3.21 ft (0.978 m) June 10, 1952 (backwater from log on control); minimum discharge not determined, probably occurred during January or February 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 241 ft^3/s (6.83 m^3/s) at 1900 July 2, gage height, 2.27 ft (0.692 m); minimum daily, 5.0 ft^3/s (0.142 m^3/s) Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	6.6	6.0	6.0	5.1	5.4	6.2	12	37	133	22	18
2	5.3	7.9	6.0	6.2	5.0	5.4	6.2	14	38	185	22	18
3	6.5	7.7	6.0	6.2	5.2	5.4	6.2	15	39	215	21	18
4	8.6	7.7	5.8	6.2	5.1	5.4	6.2	17	38	203	21	17
5	13	8.2	5.8	5.8	5.2	5.4	6.2	15	40	184	21	22
6	12	7.6	5.8	6.2	5.3	5.4	6.2	13	41	135	21	19
7	11	6.7	5.7	6.2	5.5	5.4	6.2	9.5	40	64	21	18
8	11	6.3	5.7	6.0	5.6	5.4	6.2	10	39	52	20	18
9	12	6.4	5.6	5.7	5.6	5.4	6.2	12	38	50	21	18
10	10	6.4	5.6	5.6	5.6	5.4	6.2	12	38	71	21	17
11	10	6.4	5.6	5.4	5.6	5.6	6.2	11	38	69	20	18
12	11	6.4	5.6	5.3	5.6	5.8	6.2	11	38	48	22	19
13	8.6	6.4	5.6	5.1	5.6	5.8	6.2	12	38	29	22	19
14	8.1	6.4	5.6	5.1	5.6	5.8	6.2	10	37	53	22	19
15	8.0	6.2	5.6	5.1	5.6	5.8	6.2	10	37	74	20	18
16	8.0	6.4	5.6	5.2	5.6	5.8	6.2	10	36	58	20	10
17	7.5	6.4	5.6	5.2	5.6	5.8	6.4	11	36	48	19	9.5
18	7.7	6.4	5.7	5.1	5.6	5.8	6.6	14	41	38	19	9.5
19	7.2	6.4	5.8	5.1	5.6	5.8	6.8	15	36	32	20	9.6
20	7.2	6.2	5.6	5.1	5.6	5.8	7.0	15	35	23	19	9.7
21	7.0	6.2	5.6	5.1	5.4	5.6	7.0	16	35	23	19	9.0
22	6.9	6.1	5.5	5.2	5.4	5.4	7.0	20	36	27	19	9.0
23	6.4	6.1	5.8	5.2	5.4	5.6	7.2	24	35	25	19	9.5
24	6.7	6.1	6.0	5.1	5.4	5.8	7.1	26	35	25	19	11
25	6.9	6.0	6.2	5.1	5.4	6.0	7.2	26	34	25	19	11
26	7.0	6.0	5.7	5.1	5.4	6.2	7.6	26	35	26	19	11
27	7.0	6.0	5.6	5.2	5.4	6.2	7.3	30	38	23	19	11
28	6.8	6.0	5.7	5.2	5.4	6.2	8.6	35	44	32	19	11
29	6.8	6.0	6.0	5.2	---	6.2	9.3	38	67	90	20	11
30	6.8	5.9	6.0	5.1	---	6.2	10	39	88	50	19	10
31	6.8	---	6.2	5.1	---	6.2	---	39	---	23	18	---
TOTAL	253.3	195.5	178.6	168.4	152.4	177.4	204.3	567.5	1207	2133	623	427.8
MEAN	8.17	6.52	5.76	5.43	5.44	5.72	6.81	18.3	40.2	68.8	20.1	14.3
MAX	13	8.2	6.2	6.2	5.6	6.2	10	39	88	215	22	22
MIN	5.3	5.9	5.5	5.1	5.0	5.4	6.2	9.5	34	23	18	9.0
AC-FT	502	388	354	334	302	352	405	1130	2390	4230	1240	849

CAL YR 1981 TOTAL 4289.1 MEAN 11.8 MAX 40 MIN 3.9 AC-FT 8510
WTR YR 1982 TOTAL 6288.2 MEAN 17.2 MAX 215 MIN 5.0 AC-FT 12470

NOTE.--NO GAGE-HEIGHT RECORD FEB. 10 to APRIL 23.

09032000 RANCH CREEK NEAR FRASER, CO

LOCATION.--Lat 39°57'00", long 105°45'54", in NW¼NE¼ sec.22, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 450 ft (137 m) downstream from Middle Fork and 2.7 mi (4.3 km) east of Fraser.

DRAINAGE AREA.--19.9 mi² (51.5 km²).

PERIOD OF RECORD.--August 1934 to current year. Records since May 15, 1949, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 1243: 1935.

GAGE.--Water-stage recorder. Altitude of gage is 8,685 ft (2,647 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversion above station for irrigation of hay meadows along Fraser River. Transmountain diversion above station to Moffat water tunnel (not furnished by Colorado Division of Water Resources). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 402 ft³/s (11.2 m³/s) June 28, 1957, gage height, 3.72 ft (1.134 m); minimum daily, 0.4 ft³/s (0.011 m³/s) Sept. 21, Oct. 6, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft³/s (4.30 m³/s) at 2100 July 2, gage height, 2.58 ft (0.786 m); minimum daily, 0.72 ft³/s (0.020 m³/s) Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	1.9	2.6	3.1	2.5	1.6	2.0	7.5	28	96	8.3	4.8
2	3.6	2.0	2.6	3.2	2.4	1.6	2.0	9.2	27	122	8.0	4.3
3	2.2	2.2	2.7	3.3	2.4	1.6	2.0	10	26	127	8.0	4.2
4	2.5	2.5	2.5	3.3	2.4	1.6	2.0	12	26	118	7.3	4.2
5	3.6	2.6	2.7	3.3	2.4	1.6	1.9	11	29	100	6.4	6.5
6	3.5	2.6	2.7	3.1	2.4	1.6	1.9	11	29	82	6.4	5.8
7	3.2	2.7	2.7	3.1	2.7	1.6	1.9	7.1	28	58	7.3	4.8
8	3.1	2.9	2.7	3.1	2.8	1.6	1.9	6.2	28	38	6.8	4.5
9	3.6	3.0	2.6	2.9	2.8	1.6	1.8	7.6	25	21	6.9	4.4
10	2.7	2.9	2.5	2.8	2.7	1.6	1.8	8.8	24	28	6.7	4.2
11	2.2	2.9	2.5	2.8	2.6	1.6	1.8	8.0	22	26	7.1	4.4
12	2.5	2.9	2.5	2.8	2.5	1.6	1.8	8.3	23	19	8.3	5.7
13	2.5	2.8	2.5	2.7	2.4	1.6	1.8	10	28	8.0	7.3	5.1
14	2.6	2.8	2.5	2.7	2.3	1.6	1.9	9.3	24	21	7.4	5.1
15	2.7	2.8	2.5	2.7	2.1	1.6	2.0	8.7	23	32	6.0	4.9
16	2.6	2.7	2.5	2.7	2.1	1.6	2.0	8.3	20	23	5.7	3.0
17	2.5	3.2	2.5	2.6	2.0	1.6	2.0	8.8	22	17	7.0	2.8
18	2.6	2.8	2.7	2.5	2.0	1.6	2.1	10	21	16	6.0	2.7
19	2.5	2.7	2.7	2.5	2.0	1.6	2.2	10	16	13	5.7	2.7
20	2.5	2.7	2.7	2.5	2.0	1.6	2.3	10	16	5.2	5.7	2.9
21	2.3	2.7	2.7	2.4	2.0	1.6	2.4	13	21	5.7	5.4	2.9
22	2.3	2.7	2.8	2.4	2.0	1.5	2.5	16	23	8.6	5.2	2.8
23	2.2	2.7	2.8	2.4	1.7	1.6	2.6	19	18	8.0	5.2	2.9
24	2.1	2.8	2.7	2.4	1.7	1.6	2.7	20	16	7.0	5.0	2.9
25	2.1	2.7	2.8	2.4	1.7	1.6	2.8	19	15	9.6	5.2	2.7
26	2.1	2.7	2.8	2.4	1.7	1.7	2.9	21	19	10	5.4	2.8
27	2.1	2.7	2.8	2.4	1.7	1.7	3.2	24	22	6.7	5.1	2.9
28	2.1	2.7	2.8	2.5	1.7	1.8	3.8	28	20	10	5.3	2.9
29	1.9	2.7	2.8	2.5	---	1.9	4.0	30	18	32	5.5	2.8
30	1.9	2.7	2.9	2.5	---	2.0	5.2	29	33	24	5.2	2.8
31	.72	---	3.1	2.5	---	2.0	---	29	---	6.7	5.0	---
TOTAL	79.22	80.7	82.9	84.5	61.7	51.0	71.2	429.8	690	1098.5	195.8	115.4
MEAN	2.56	2.69	2.67	2.73	2.20	1.65	2.37	13.9	23.0	35.4	6.32	3.85
MAX	4.2	3.2	3.1	3.3	2.8	2.0	5.2	30	33	127	8.3	6.5
MIN	.72	1.9	2.5	2.4	1.7	1.5	1.8	6.2	15	5.2	5.0	2.7
AC-FT	157	160	164	168	122	101	141	853	1370	2180	388	229

CAL YR 1981 TOTAL 1692.52 MEAN 4.64 MAX 62 MIN .72 AC-FT 3360
WTR YR 1982 TOTAL 3040.72 MEAN 8.33 MAX 127 MIN .72 AC-FT 6030

09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, COLORADO

LOCATION.--Lat 40°06'30", long 106°00'13" in NW¼ sec.27, R.77 W., T.2 N., Grand County, Hydrologic Unit 14010001, on right bank 300 ft (91 m) downstream from county highway bridge, 2.4 mi (3.9 km) downstream from mouth of Fraser River and 3.8 mi (6.1 km) northwest of Granby.

DRAINAGE AREA.--789 mi² (2,043 km²).

PERIOD OF RECORD.--October to September 1982.

GAGE.--Water-stage recorder. Datum of gage is 7,790 ft (2,374 m) from topographic map.

REMARKS.--Records good except for period of no gage-height record which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) at 0600 July 3, gage height, 4.03 ft (1.228 m); minimum daily, 42 ft³/s (1.19 m³/s) Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	66	107	67	60	64	89	325	503	696	253	99
2	42	66	92	67	63	66	99	353	467	853	213	82
3	44	66	80	67	64	68	87	358	479	942	178	78
4	48	66	70	67	64	68	94	398	455	901	168	78
5	54	66	66	67	64	68	89	408	443	829	168	102
6	62	66	66	67	64	68	89	284	473	781	152	130
7	62	66	66	67	64	68	90	266	467	473	145	99
8	62	66	66	67	64	68	90	266	461	443	142	89
9	62	66	66	67	64	68	84	276	473	378	139	87
10	62	66	66	67	64	68	84	289	433	467	145	80
11	62	66	62	67	64	73	90	271	428	438	139	99
12	62	66	60	67	64	77	145	298	423	408	168	127
13	62	68	60	67	64	80	155	334	443	312	152	121
14	62	73	60	67	64	80	182	302	449	325	185	121
15	62	82	60	67	64	80	202	302	461	418	145	110
16	62	78	58	67	64	80	196	343	461	353	142	97
17	62	78	56	67	64	80	145	343	433	330	133	75
18	62	80	52	67	64	80	165	334	647	320	136	68
19	62	71	54	67	64	80	158	330	577	298	133	64
20	62	68	60	67	64	80	121	334	473	266	148	73
21	62	80	60	64	64	80	112	316	443	253	139	68
22	62	78	60	64	64	85	121	353	428	245	130	62
23	62	75	60	64	64	90	162	393	455	245	136	64
24	62	73	60	64	62	90	168	433	428	249	127	61
25	62	78	60	64	62	90	165	438	428	249	127	59
26	62	71	60	64	62	90	213	485	443	271	127	68
27	62	94	60	64	62	90	196	479	433	266	124	68
28	66	102	60	64	62	100	206	485	438	276	121	75
29	66	136	60	60	---	105	229	545	473	418	136	73
30	66	118	60	60	---	140	253	539	515	485	127	66
31	66	---	65	60	---	200	---	533	---	302	121	---
TOTAL	1858	2295	1992	2032	1777	2624	4270	11413	13933	13490	4599	2543
MEAN	59.9	76.5	64.3	65.5	63.5	84.6	143	368	464	435	148	84.8
MAX	66	135	107	67	64	200	253	545	647	942	253	130
MIN	42	66	52	60	60	64	84	266	423	245	121	59
AC-FT	3690	4550	3950	4030	3520	5200	8490	22640	27640	26760	9120	5040

WTR YR 1982 TOTAL 62835 MEAN 172 MAX 942 MIN 42 AC-FT 124600

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO NOV. 13, DEC. 18 TO MAR. 31.

COLORADO RIVER MAIN STEM

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

LOCATION.--Lat 40°05'00", long 106°05'15", in NE¼NE¼ sec.2, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on left bank about 1,000 ft (300 m) north of U.S. Highway 40, 1 mi (1.6 km) northeast of Hot Sulphur Springs, and 4.5 mi (7.2 km) upstream from Beaver Creek.

DRAINAGE AREA.--825 mi^2 (2,137 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to 1907 and 1914-18, published as Grand River at Hot Sulphur Springs, and as Grand River at Sulphur Springs 1907-13.

REVISED RECORDS.--WSP 1313: 1905. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,670 ft (2,338 m), from railroad elevations. July 28, 1904, to Apr. 16, 1906, nonrecording gage on bridge 1.7 mi (2.7 km) downstream at different datum. Apr. 17, 1906, to Sept. 18, 1930, nonrecording gage at bridge 1.4 mi (2.3 km) downstream at datum 7,651.26 ft (2,332.104 m) National Geodetic Vertical Datum of 1929. Supplemental water-stage recorder (nonrecording gage prior to Jan. 1, 1963) at different datum at site 1.7 mi (2.7 km) downstream, used for winter records some years.

REMARKS.--Records good except those for winter period, which are fair. Flow affected by transmountain diversions, storage reservoirs, and diversions above station for irrigation of about 13,000 acres (52.6 km^2).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,300 ft^3/s (292 m^3/s) June 15, 1921, gage height, 8.7 ft (2.56 m), site and datum then in use; minimum daily, 33 ft^3/s (0.93 m^3/s) Sept. 27, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft^3/s (31.2 m^3/s) at 0800 July 3, gage height, 2.10 ft (0.640 m); minimum daily, 44 ft^3/s (1.25 m^3/s) Oct. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	73	70	68	64	63	97	316	533	732	237	113
2	44	70	70	68	64	68	108	369	499	895	205	108
3	48	71	70	68	64	69	95	391	495	1020	177	110
4	50	69	71	68	64	67	101	404	480	970	177	100
5	61	67	66	68	64	66	96	473	472	906	177	120
6	68	65	69	68	64	63	94	315	510	804	177	147
7	65	68	67	68	64	71	96	276	494	520	172	107
8	65	72	64	68	64	67	83	264	479	474	169	106
9	70	70	63	68	64	67	86	265	482	398	169	102
10	70	66	62	68	64	68	84	294	480	501	170	102
11	62	63	63	68	64	71	90	275	466	471	168	116
12	69	64	64	68	64	82	145	304	461	451	170	148
13	65	64	62	68	64	79	151	351	476	333	169	135
14	63	68	62	68	64	83	177	313	475	340	178	140
15	63	73	62	68	64	87	199	305	481	460	169	127
16	62	71	60	68	64	87	194	350	463	393	171	118
17	64	69	57	67	64	89	148	352	469	360	172	99
18	63	74	51	66	66	87	162	341	687	360	170	94
19	61	68	56	65	63	85	160	334	638	343	167	90
20	62	74	68	65	64	78	128	342	522	307	168	94
21	68	70	66	65	66	79	115	330	482	290	166	75
22	66	70	63	64	66	81	125	365	455	272	163	69
23	63	68	60	64	65	82	155	423	471	263	164	69
24	67	67	61	64	64	82	172	472	445	263	160	64
25	69	72	61	64	63	88	164	476	446	265	161	64
26	64	74	63	63	62	88	201	507	454	286	165	69
27	66	72	63	64	61	90	211	521	433	278	161	71
28	67	70	63	61	64	103	194	516	469	280	133	73
29	71	70	63	60	---	107	232	580	508	429	142	73
30	75	70	65	61	---	144	231	591	545	515	132	68
31	73	---	68	61	---	216	---	583	---	293	134	---
TOTAL	1968	2082	1973	2042	1792	2657	4294	11998	14770	14472	5213	2971
MEAN	63.5	69.4	63.6	65.9	64.0	85.7	143	387	492	467	168	99.0
MAX	75	74	71	68	66	216	232	591	687	1020	237	148
MIN	44	63	51	60	61	63	83	264	433	263	132	64
AC-FT	3900	4130	3910	4050	3550	5270	8520	23800	29300	28710	10340	5890

CAL YR 1981 TOTAL 40614 MEAN 111 MAX 502 MIN 41 AC-FT 80560
WTR YR 1982 TOTAL 66232 MEAN 181 MAX 1020 MIN 44 AC-FT 131400

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1947 to current year.
WATER TEMPERATURES: April 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 400 micromhos Feb. 5, 1974; minimum daily, 48 micromhos June 2, 1947.
WATER TEMPERATURES: Maximum, 29°C Aug. 3, 1981; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 190 micromhos Dec. 30, 31; minimum daily, 85 micromhos July 3-5.
WATER TEMPERATURES: Maximum daily, 20.0°C Aug. 17; minimum daily, 0.0°C many days during November to April.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
NOV												
20...	1115	48	140	135	8.5	.5	11.7	--	58	18	3.1	6.6
FEB												
26...	1300	60	140	133	--	.5	11.2	.75	54	17	2.9	7.2
MAY												
24...	1145	490	101	100	7.7	7.5	9.6	--	38	12	2.0	4.1
SEP												
21...	1530	76	145	150	8.3	17.0	8.4	--	63	20	3.1	6.9

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
NOV												
20...	.4	1.6	59	<5.0	1.0	.2	11	--	.12	11.6	<.09	<.09
FEB												
26...	.4	1.6	63	6.0	2.6	.3	12	89	.12	14.4	--	.31
MAY												
24...	.3	1.2	41	6.0	1.4	.2	11	63	.09	83.3	<.10	<.10
SEP												
21...	.4	1.5	63	7.0	1.6	.3	11	89	.12	18.3	<.10	<.10

DATE	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)
NOV											
20...	.61	.37	.030	.020	<1	<1	<1	<1	<10	<10	3
FEB											
26...	--	.44	--	.060	1	<1	<1	<1	3	<1	8
MAY											
24...	.80	.60	.080	.020	1	<1	<1	<3	4	<1	8
SEP											
21...	1.00	1.2	.050	.040	1	<1	<1	<1	<1	<1	2

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV											
20...	3	93	37	11	44	<.1	<.1	--	--	10	5
FEB											
26...	3	56	39	16	20	<.1	.3	<1	<1	10	<3
MAY											
24...	1	66	23	<1	15	.1	<.1	<1	<1	20	<12
SEP											
21...	3	140	2	5	8	.1	<.1	<1	<1	10	5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	140	130	---	140	160	160	130	100	100	140	120
2	160	150	160	128	140	140	170	130	110	90	150	120
3	160	150	130	127	140	150	160	120	110	85	160	120
4	160	140	150	130	100	140	180	120	115	85	150	120
5	160	150	160	130	120	160	180	120	110	85	120	110
6	160	140	150	131	---	160	180	120	110	95	120	115
7	150	160	150	133	---	160	160	120	115	110	120	110
8	140	140	150	134	---	150	180	120	110	110	140	120
9	140	140	150	132	140	150	170	120	110	130	140	120
10	140	150	150	130	140	150	160	120	115	115	150	115
11	150	150	140	132	140	130	150	120	120	110	140	---
12	150	140	140	131	140	140	150	110	120	110	140	120
13	150	140	140	132	140	150	160	120	120	---	130	130
14	160	150	140	130	140	140	150	120	120	115	120	110
15	150	---	140	130	140	130	150	140	125	120	140	110
16	170	160	140	132	140	140	140	130	130	135	150	110
17	160	160	140	131	140	140	160	130	135	140	130	110
18	150	160	160	130	140	120	160	120	135	120	120	115
19	150	160	140	130	140	140	150	120	135	150	120	120
20	150	150	140	132	140	140	150	100	135	150	120	120
21	140	150	140	---	130	150	160	115	140	150	120	120
22	150	140	140	110	150	150	160	100	135	140	120	110
23	150	140	140	110	130	130	150	100	130	160	120	110
24	140	140	160	110	150	140	160	105	135	150	120	110
25	150	160	160	110	150	---	140	105	130	160	120	110
26	160	150	160	140	160	160	150	110	130	150	120	110
27	140	160	160	115	160	160	160	110	140	160	120	120
28	140	160	160	140	150	160	160	100	130	160	120	120
29	150	130	190	140	---	180	150	100	120	150	120	120
30	150	150	190	130	---	180	150	105	120	120	110	110
31	150	---	160	140	---	180	---	105	---	150	120	---

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	7.0	.0	---	.0	.0	7.0	7.0	8.0	13.0	16.0	19.0
2	11.0	7.0	.0	---	.0	.0	1.0	9.0	9.0	12.0	17.0	16.0
3	9.0	5.0	.0	---	.0	.0	5.0	4.0	8.0	13.0	16.0	15.0
4	10.0	3.0	.0	---	.0	1.0	.0	3.0	11.0	12.0	17.0	10.0
5	10.0	1.0	.0	---	.0	1.0	6.0	2.0	12.0	7.0	18.0	12.0
6	12.0	6.0	.0	---	---	.0	1.0	2.0	9.0	6.0	12.0	15.0
7	8.0	1.0	.0	---	---	.0	.0	3.0	10.0	14.0	16.0	14.0
8	10.0	6.0	.0	---	---	.0	1.0	7.0	7.0	10.0	17.0	11.0
9	11.0	7.0	.0	---	.0	.0	4.0	7.0	6.0	12.0	18.0	14.0
10	10.0	.0	.0	---	.0	1.0	5.0	6.0	7.0	10.0	15.0	16.0
11	10.0	.0	.0	---	.0	4.0	9.0	6.0	12.0	15.0	16.0	---
12	9.0	2.0	.0	---	.0	2.0	8.0	6.0	7.0	15.0	15.0	12.0
13	9.0	1.0	.0	---	.0	5.0	6.0	3.0	10.0	---	14.0	10.0
14	12.0	3.0	.0	---	.0	3.0	7.0	4.0	10.0	14.0	15.0	8.0
15	10.0	---	.0	---	.0	3.0	5.0	4.0	7.0	11.0	17.0	13.0
16	8.0	7.0	.0	---	.0	6.0	2.0	5.0	12.0	10.0	15.0	11.0
17	3.0	5.0	.0	---	.0	7.0	11.0	7.0	9.0	11.0	20.0	13.0
18	10.0	1.0	.0	---	.0	6.0	5.0	7.0	7.0	15.0	18.0	15.0
19	8.0	.0	.0	---	.0	.0	3.0	6.0	11.0	17.0	17.0	16.0
20	8.0	.0	.0	---	.0	.0	2.0	4.0	13.0	11.0	17.0	15.0
21	10.0	1.0	.0	---	.0	.0	.0	10.0	7.0	16.0	18.0	13.0
22	6.0	2.0	.0	.0	.0	1.0	3.0	12.0	13.0	12.0	16.0	13.0
23	6.0	2.0	.0	.0	.0	1.0	7.0	9.0	13.0	16.0	11.0	15.0
24	3.0	4.0	.0	.0	.0	2.0	.0	8.0	8.0	16.0	13.0	8.0
25	4.0	2.0	.0	.0	.0	---	7.0	3.0	13.0	16.0	16.0	9.0
26	7.0	.0	.0	.0	.0	4.0	2.0	10.0	11.0	15.0	12.0	10.0
27	6.0	.0	.0	.0	.0	4.0	.0	8.0	17.0	16.0	18.0	6.0
28	4.0	.0	.0	.0	.0	7.0	1.0	8.0	10.0	15.0	19.0	6.0
29	5.0	.0	.0	.0	---	1.0	4.0	7.0	13.0	12.0	16.0	9.0
30	3.0	.0	.0	.0	---	.0	1.0	7.0	13.0	12.0	13.0	4.0
31	3.0	---	.0	.0	---	.0	---	10.0	---	17.0	13.0	---

09034900 BOBTAIL CREEK NEAR JONES PASS, CO

LOCATION.--Lat 39°45'37", long 105°54'21", in sec.28, T.3 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 320 ft (98 m) upstream from diversion dam and 0.4 mi (0.6 km) south of entrance to August P. Gumlick Tunnel.

DRAINAGE AREA.--5.49 mi² (14.21 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,430 ft (3,179 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 9.66 ft³/s (0.274 m³/s), 7,000 acre-ft/yr (8.63 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 187 ft³/s (5.30 m³/s) June 20, 1968, gage height, 4.71 ft (1.436 m); maximum recorded gage height, 6.53 ft (1.990 m) May 23, 1980 (backwater from ice); minimum daily discharge, 0.44 ft³/s (0.012 m³/s) Feb. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 135 ft³/s (3.82 m³/s) at 1800 July 1, gage height 4.41 (1.344 m); only peak above base of 90 ft³/s (2.55 m³/s); minimum daily, 0.80 ft³/s (0.023 m³/s) Mar. 21 to Apr. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	.92	1.6	1.4	1.2	1.0	.80	2.5	17	105	24	7.4
2	2.4	1.2	1.6	1.2	1.2	1.0	.80	2.5	16	94	22	6.6
3	3.1	1.4	1.6	1.2	1.2	1.0	.80	3.0	16	82	21	6.8
4	2.9	1.4	1.6	1.2	1.2	1.0	.80	3.0	15	73	20	6.1
5	2.6	1.6	1.6	1.2	1.2	1.0	.80	3.0	22	62	19	9.7
6	2.4	1.8	1.6	1.2	1.0	1.0	.80	3.0	22	56	17	7.8
7	2.2	1.8	1.6	1.2	1.0	1.0	.80	2.5	23	48	16	7.1
8	2.2	1.8	1.6	1.2	1.0	1.0	.80	2.5	26	44	16	7.4
9	2.1	1.8	1.6	1.2	1.0	1.0	.80	2.5	28	44	16	7.4
10	1.8	1.8	1.6	1.2	1.0	1.0	.80	2.5	29	40	15	5.9
11	2.1	1.8	1.6	1.2	1.0	1.0	1.0	2.5	30	40	18	7.8
12	2.2	1.8	1.6	1.2	1.0	1.0	1.4	2.5	35	42	19	9.7
13	1.9	1.8	1.6	1.2	1.0	1.0	1.6	2.5	35	40	17	9.7
14	2.1	1.8	1.6	1.2	1.0	1.0	1.6	2.5	38	41	17	10
15	2.1	1.8	1.6	1.2	1.0	1.0	1.6	2.5	35	39	16	10
16	2.1	1.8	1.6	1.2	1.0	1.0	1.6	2.6	39	36	15	11
17	2.2	1.8	1.4	1.2	1.0	1.0	1.6	2.6	45	35	15	12
18	2.1	1.8	1.4	1.2	1.0	1.0	1.6	2.8	41	33	15	11
19	2.0	1.8	1.4	1.2	1.0	1.0	1.6	2.9	34	32	16	11
20	2.0	1.6	1.4	1.2	1.0	1.0	1.6	3.0	36	31	15	11
21	2.0	1.6	1.4	1.2	1.0	.80	1.6	3.1	43	29	14	11
22	2.0	1.6	1.4	1.2	1.0	.80	1.6	5.9	52	28	13	10
23	2.0	1.6	1.4	1.2	1.0	.80	1.6	8.1	56	27	12	10
24	1.8	1.6	1.4	1.2	1.0	.80	2.0	9.7	62	27	11	9.7
25	1.8	1.6	1.4	1.2	1.0	.80	2.3	8.6	71	27	11	9.4
26	1.6	1.6	1.4	1.2	1.0	.80	2.5	7.8	65	26	10	10
27	1.4	1.6	1.4	1.2	1.0	.80	2.5	11	71	25	10	9.1
28	1.2	1.6	1.4	1.2	1.0	.80	2.5	12	89	28	9.7	9.1
29	.92	1.6	1.4	1.2	---	.80	2.5	15	98	29	9.1	8.9
30	1.4	1.6	1.4	1.2	---	.80	2.5	17	99	27	8.6	8.6
31	1.4	---	1.4	1.2	---	.80	---	15	---	25	7.8	---
TOTAL	62.12	49.32	46.6	37.4	29.0	28.80	44.80	166.6	1288	1315	465.2	271.2
MEAN	2.00	1.64	1.50	1.21	1.04	.93	1.49	5.37	42.9	42.4	15.0	9.04
MAX	3.1	1.8	1.6	1.4	1.2	1.0	2.5	17	99	105	24	12
MIN	.92	.92	1.4	1.2	1.0	.80	.80	2.5	15	25	7.8	5.9
AC-FT	123	98	92	74	58	57	89	330	2550	2610	923	538

CAL YR 1981 TOTAL 2925.74 MEAN 8.02 MAX 117 MIN .80 AC-FT 5800
WTR YR 1982 TOTAL 3804.04 MEAN 10.4 MAX 105 MIN .80 AC-FT 7550

NOTE.--NO GAGE-HEIGHT RECORD NOV. 6 TO MAY 20.

09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION.--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 700 ft (210 m) downstream from Steelman Creek and 6.5 mi (10.5 km) southeast of Leal.

DRAINAGE AREA.--16.3 mi (42.4 km²).

PERIOD OF RECORD.--July 1933 to September 1941, published as Williams River below Steelman Creek. October 1965 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 9,800 ft (2,987 m), from topographic map. Prior to July 21, 1933, nonrecording gage, and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft (180 m) upstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Tranmountain diversions above station through August P. Gumlick Tunnel (station 09036000) since May 10, 1940. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 25.1 ft³/s (0.711 m³/s), 18,180 acre-ft/yr (22.4 hm³/yr), including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft³/s (12.5 m³/s) June 21, 1938, gage height, 2.48 ft (0.756 m), site and datum then in use, from rating curve extended above 260 ft³/s (7.4 m³/s); maximum gage height, 5.66 ft (1.725 m) May 10, 1973 (backwater from ice); minimum daily discharge, 0.20 ft³/s (0.006 m³/s) Mar. 5, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 325 ft³/s (9.20 m³/s) at 2000 June 28, gage height, 5.40 ft (1.646 m); minimum daily, 0.29 ft³/s (0.008 m³/s) Nov. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.39	1.0	1.0	1.0	.80	.60	4.5	22	244	39	2.8
2	.60	.36	1.0	1.0	1.0	.80	.60	5.2	15	231	49	2.8
3	4.7	.36	1.0	1.0	1.0	.80	.60	7.4	14	214	36	2.6
4	9.6	.36	1.0	1.0	1.0	.60	.60	9.6	11	203	17	2.8
5	8.9	.39	1.0	1.0	1.0	.60	.60	10	18	212	12	4.3
6	7.7	.33	1.0	1.0	1.0	.60	.60	8.2	19	173	6.4	4.5
7	7.4	.30	1.0	1.4	.80	.60	.60	6.8	27	155	2.2	6.5
8	7.1	.30	1.0	2.0	.80	.60	.60	6.0	20	141	2.0	2.6
9	4.1	.30	1.0	1.2	.80	.60	.60	6.0	20	140	13	3.0
10	.72	.29	1.0	1.1	.80	.60	1.0	6.2	19	132	2.3	2.8
11	.57	.42	1.0	1.0	.80	.60	1.6	6.6	19	131	12	3.4
12	.60	1.6	1.0	1.0	.80	.60	2.3	6.8	27	129	9.2	4.5
13	.57	1.0	1.0	1.0	.80	.60	2.6	6.6	19	125	3.0	4.1
14	.54	.82	1.0	1.0	.80	.60	2.8	5.8	40	125	3.0	5.6
15	.57	.80	1.0	1.0	.80	.60	3.2	5.0	24	122	2.5	8.3
16	1.8	.80	1.4	1.0	.80	.60	3.5	4.7	18	116	16	3.0
17	.66	.80	2.0	1.0	1.0	.60	3.5	4.5	56	111	2.6	2.5
18	.60	.80	1.4	1.0	1.8	.60	3.5	4.2	36	105	13	2.5
19	1.0	.80	1.0	1.0	1.0	.60	3.4	4.0	28	102	3.0	2.3
20	.54	.80	1.0	1.0	.80	.60	3.3	4.0	17	98	18	2.3
21	2.3	.80	1.0	1.0	.80	.60	3.0	5.6	44	89	38	2.0
22	.60	.80	1.0	1.0	.80	.60	3.1	5.3	37	85	37	2.0
23	.51	.80	1.0	1.0	.80	.60	3.2	6.5	60	70	36	2.2
24	.48	.80	1.0	1.0	.80	.60	3.5	7.7	83	21	34	1.9
25	.42	.80	1.0	1.0	.80	.60	3.6	7.4	114	15	21	1.8
26	2.2	.80	1.0	1.0	.80	.60	3.7	8.1	143	29	3.4	1.8
27	2.0	.80	1.0	1.0	.80	.60	4.0	13	163	29	3.0	1.8
28	.42	.80	1.0	1.0	.80	.60	4.3	13	236	52	2.8	1.6
29	.39	.90	1.0	1.0	---	1.6	4.3	15	239	86	3.0	1.5
30	1.9	1.0	1.0	1.0	---	.80	4.3	14	234	59	9.4	1.3
31	.54	---	1.0	1.0	---	.60	---	14	---	4.7	3.4	---
TOTAL	70.63	20.32	32.8	32.7	25.00	20.40	73.10	231.7	1822	3548.7	452.2	91.1
MEAN	2.28	.68	1.06	1.05	.89	.66	2.44	7.47	60.7	114	14.6	3.04
MAX	9.6	1.6	2.0	2.0	1.8	1.6	4.3	15	239	244	49	8.3
MIN	.39	.29	1.0	1.0	.80	.60	.60	4.0	11	4.7	2.0	1.3
AC-FT	140	40	65	65	50	40	145	460	3610	7040	897	181

CAL YR 1981 TOTAL 1582.65 MEAN 4.34 MAX 130 MIN .29 AC-FT 3140
WTR YR 1982 TOTAL 6420.65 MEAN 17.6 MAX 244 MIN .29 AC-FT 12740

NOTE.--NO GAGE-HEIGHT RECORD NOV. 12 TO MAY 20.

09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO

LOCATION.--Lat 39°47'22", long 106°01'18", in NW¼SW¼ sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 1.0 mi (1.6 km) upstream from Darling Creek and 1.9 mi (3.1 km) southeast of Leal.

DRAINAGE AREA.--34.7 mi² (89.9 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,970 ft (2,734 m), from topographic map. Prior to Oct. 1, 1972, at site 0.6 mi (1.0 km) downstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record and those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 34.5 ft³/s (0.977 m³/s), 25,000 acre-ft/yr (30.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 677 ft³/s (19.2 m³/s) June 24, 1971, gage height, 7.12 ft (2.170 m), site and datum then in use, from rating curve extended above 430 ft³/s (12 m³/s); minimum daily, 2.7 ft³/s (0.076 m³/s) Apr. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 532 ft³/s (15.1 m³/s) at 2300 June 28, gage height, 6.33 ft (1.929 m); minimum daily, 3.6 ft³/s (0.10 m³/s) Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	5.8	7.4	6.2	5.7	4.7	4.8	25	79	421	70	16
2	5.0	6.4	7.6	6.1	5.7	4.6	5.0	32	78	397	78	15
3	7.1	7.0	7.3	6.0	5.7	4.8	4.7	37	74	379	70	14
4	15	5.8	6.7	6.0	5.7	4.9	4.7	40	73	358	58	14
5	15	8.0	6.5	5.9	5.6	4.9	4.8	38	86	328	43	20
6	13	8.3	7.0	5.9	5.3	4.9	5.0	30	91	292	37	18
7	12	4.9	7.3	5.9	5.0	4.9	4.9	25	97	260	32	16
8	12	5.4	7.2	6.0	4.5	4.9	4.6	24	97	242	30	15
9	13	5.4	6.9	6.0	4.2	4.9	4.7	28	104	242	41	14
10	7.5	6.3	7.3	6.0	4.4	4.9	5.4	33	106	227	30	14
11	6.6	6.1	7.3	6.1	4.4	4.9	6.8	33	106	198	35	15
12	6.9	6.4	7.1	6.1	4.4	4.9	8.0	35	115	185	38	19
13	6.7	6.1	6.8	6.0	4.4	4.9	9.0	25	116	180	31	18
14	6.4	5.6	6.6	5.8	4.4	5.0	9.8	20	125	172	30	19
15	6.7	4.3	6.5	5.7	4.4	5.1	10	19	118	167	27	18
16	7.4	3.8	6.5	5.7	4.6	5.1	11	18	115	160	34	15
17	7.7	6.0	6.5	5.7	4.5	5.1	10	20	147	150	25	14
18	6.4	6.8	6.5	5.9	4.4	5.1	11	21	142	142	30	13
19	5.8	7.0	6.5	5.8	4.4	5.0	10	23	126	137	26	13
20	6.4	7.0	6.5	5.8	4.5	4.8	9.4	24	118	132	29	12
21	6.4	7.0	6.5	6.0	4.7	4.7	8.6	28	138	127	43	12
22	5.6	7.0	6.5	5.9	4.9	4.7	9.4	36	139	120	41	11
23	3.6	7.0	6.5	5.6	5.0	4.8	10	52	164	110	40	11
24	6.1	7.0	6.5	5.5	5.0	4.8	10	57	192	90	37	10
25	5.8	6.8	6.5	5.5	4.9	4.8	11	53	236	86	33	10
26	7.7	6.7	6.5	5.5	4.9	4.8	11	54	268	88	20	11
27	8.0	6.6	6.5	5.6	4.9	4.9	12	69	280	90	18	11
28	7.0	6.8	6.5	5.7	4.9	5.0	13	61	376	100	18	12
29	6.1	7.8	6.5	5.7	---	4.7	15	71	421	120	18	12
30	5.8	7.4	6.5	5.7	---	4.7	17	73	396	100	20	11
31	6.7	---	6.3	5.7	---	4.7	---	70	---	70	17	---
TOTAL	240.7	192.5	209.3	181.0	135.4	150.9	260.6	1174	4723	5870	1099	423
MEAN	7.76	6.42	6.75	5.84	4.84	4.87	8.69	37.9	157	189	35.5	14.1
MAX	15	8.3	7.6	6.2	5.7	5.1	17	73	421	421	78	20
MIN	3.6	3.8	6.3	5.5	4.2	4.6	4.6	18	73	70	17	10
AC-FT	477	382	415	359	269	299	517	2330	9370	11640	2180	839

CAL YR 1981 TOTAL 6491.4 MEAN 17.8 MAX 208 MIN 3.6 AC-FT 12880
WTR YR 1982 TOTAL 14659.4 MEAN 40.2 MAX 421 MIN 3.6 AC-FT 29080

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO MAY 17.

09035800 DARLING CREEK NEAR LEAL, CO

LOCATION.--Lat 39°48'17", long 106°01'11", in NE¼SW¼ sec.9, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 0.6 mi (1.0 km) upstream from mouth and 1.4 mi (2.3 km) southeast of Leal.

DRAINAGE AREA.--8.18 mi² (21.2 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,090 ft (2,771 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 8.91 ft³/s (0.252 m³/s), 6,460 acre-ft/yr (7.97 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 224 ft³/s (6.34 m³/s) June 20, 1968, gage height, 3.62 ft (1.103 m), from rating curve extended above 80 ft³/s (2.26 m³/s); maximum gage height, 3.91 ft (1.192 m) June 25, 1971; minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Jan. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104 ft³/s (2.95 m³/s) at 2100 June 27, gage height, 3.71 ft (1.131 m); minimum daily, 1.3 ft³/s (0.037 m³/s) Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.7	2.2	2.3	1.8	1.5	1.6	3.2	18	80	16	5.5
2	2.5	2.6	2.3	2.2	1.7	1.6	1.6	4.0	18	76	16	5.5
3	3.1	2.7	2.3	2.1	1.7	1.6	1.5	4.7	17	72	14	5.3
4	3.2	2.4	2.3	2.0	1.7	1.6	1.5	5.2	17	66	13	5.2
5	3.3	2.4	2.3	2.0	1.7	1.6	1.5	4.6	22	62	12	9.4
6	2.9	2.5	2.3	2.0	1.6	1.6	1.6	3.7	25	55	11	7.3
7	2.8	2.8	2.3	1.9	1.5	1.6	1.5	3.2	25	50	11	6.2
8	2.8	2.7	2.3	1.9	1.4	1.6	1.5	3.1	29	47	10	6.1
9	3.2	2.4	2.3	1.9	1.3	1.6	1.5	3.5	31	46	11	5.8
10	3.0	2.4	2.3	2.0	1.4	1.6	1.4	4.0	32	42	9.6	5.4
11	2.9	2.5	2.3	2.0	1.4	1.6	1.4	4.6	34	41	11	6.3
12	3.2	2.4	2.4	2.0	1.4	1.5	1.4	4.6	36	40	11	7.7
13	3.1	2.4	2.4	1.9	1.4	1.6	1.4	4.1	36	39	12	7.8
14	3.1	2.4	2.4	1.8	1.4	1.7	1.4	3.6	37	37	12	7.5
15	3.1	2.4	2.5	1.8	1.5	1.7	1.4	3.3	36	34	9.9	7.3
16	3.1	2.4	2.4	1.8	1.5	1.7	1.5	2.9	40	32	9.0	6.4
17	2.9	2.3	2.3	1.8	1.4	1.6	1.4	2.7	47	30	8.5	5.7
18	3.4	2.1	2.3	1.9	1.4	1.6	1.5	2.7	48	28	7.9	5.4
19	2.7	2.2	2.3	1.8	1.5	1.7	1.4	2.9	42	27	7.7	5.3
20	2.9	2.3	2.3	1.8	1.5	1.6	1.4	2.8	44	25	7.8	5.2
21	2.9	2.2	2.3	1.8	1.5	1.5	1.4	3.4	49	25	7.5	4.9
22	2.6	1.9	2.2	1.8	1.6	1.6	1.4	5.0	55	23	7.2	4.8
23	2.0	2.2	2.3	1.7	1.6	1.6	1.4	6.2	57	21	6.9	4.9
24	2.5	2.4	2.3	1.7	1.6	1.6	1.5	6.4	63	20	6.8	4.6
25	2.8	2.3	2.3	1.8	1.6	1.6	1.5	6.1	65	18	6.8	4.6
26	2.8	2.1	2.3	1.8	1.5	1.6	1.5	6.4	65	22	6.7	4.8
27	3.0	2.1	2.2	1.8	1.6	1.7	1.6	8.0	72	23	6.2	4.5
28	2.8	2.2	2.2	1.8	1.5	1.6	1.7	10	81	24	6.5	4.8
29	2.8	2.3	2.2	1.8	---	1.5	1.9	14	80	24	6.9	4.8
30	2.6	2.3	2.3	1.8	---	1.5	2.5	14	76	21	6.6	4.6
31	2.6	---	2.3	1.8	---	1.6	---	15	---	18	6.1	---
TOTAL	89.1	71.0	71.4	58.5	42.7	49.6	45.8	167.9	1297	1168	294.6	173.6
MEAN	2.87	2.37	2.30	1.89	1.53	1.60	1.53	5.42	43.2	37.7	9.50	5.79
MAX	3.4	2.8	2.5	2.3	1.8	1.7	2.5	15	81	80	16	9.4
MIN	2.0	1.9	2.2	1.7	1.3	1.5	1.4	2.7	17	18	6.1	4.5
AC-FT	177	141	142	116	85	98	91	333	2570	2320	584	344

CAL YR 1981 TOTAL 2487.0 MEAN 6.81 MAX 89 MIN 1.9 AC-FT 4930
WTR YR 1982 TOTAL 3529.2 MEAN 9.67 MAX 81 MIN 1.3 AC-FT 7000

NOTE.--NO GAGE-HEIGHT RECORD NOV. 25 TO MAY 17.

09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'44", long 106°01'49", in NE¼ sec.17, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 800 ft (244 m) upstream from highway bridge, 0.6 mi (1.0 km) upstream from mouth, and 1.2 mi (1.9 km) southeast of Leal.

DRAINAGE AREA.--27.2 mi² (70.4 km²).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,950 ft (2,728 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 30.3 ft³/s (0.858 m³/s), 21,950 acre-ft/yr (27.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 464 ft³/s (13.1 m³/s) June 15, 1978, gage height 3.37 ft (1.027 m); maximum gage height, 4.22 ft (1.286 m) Nov. 22, 1979 (backwater from ice); minimum daily discharge, 2.6 ft³/s (0.074 m³/s) Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 355 ft³/s (10.1 m³/s) at 2200 June 28, gage height, 3.26 ft (0.994 m); only peak above base of 200 ft³/s (5.7 m³/s); minimum daily, 6.2 ft³/s (0.18 m³/s) Nov. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	6.8	7.4	8.0	7.0	7.6	23	85	236	66	25
2	12	11	7.2	7.3	8.0	7.1	7.8	27	86	225	63	24
3	13	12	7.3	7.1	8.3	7.2	7.2	29	84	223	59	23
4	13	12	7.2	6.9	8.3	7.3	7.4	30	87	212	57	23
5	12	13	7.2	6.6	8.2	7.3	7.6	29	109	198	54	32
6	12	13	7.4	6.6	8.0	7.3	7.8	26	115	180	51	28
7	12	12	7.4	7.2	7.0	7.3	7.5	24	120	161	48	25
8	12	11	7.3	7.4	6.3	7.3	7.2	23	134	159	46	24
9	12	11	7.3	7.6	6.3	7.3	7.5	24	145	160	48	24
10	12	7.5	7.3	7.8	6.3	7.3	7.5	26	148	150	46	22
11	12	6.4	7.3	8.0	6.3	7.3	8.0	28	148	152	45	25
12	12	6.2	7.5	8.0	6.3	7.3	8.8	27	165	146	52	31
13	12	6.8	7.4	7.9	6.3	7.2	9.8	24	167	142	47	29
14	12	7.0	7.9	7.7	6.3	7.8	12	22	177	133	45	28
15	12	7.0	7.9	7.4	6.4	7.8	11	19	171	120	40	26
16	12	6.9	7.9	7.4	6.6	7.8	11	18	170	109	37	24
17	12	6.8	7.5	7.4	6.3	7.8	14	18	194	105	37	23
18	12	6.7	7.3	7.5	6.3	7.4	12	19	206	101	38	22
19	11	6.6	7.4	7.7	6.4	7.8	11	22	173	98	49	22
20	11	6.5	7.6	7.7	6.6	7.4	9.6	23	173	96	44	22
21	11	7.4	7.5	7.5	6.7	7.2	9.5	24	189	90	38	21
22	11	7.4	7.3	7.8	7.0	7.4	11	32	213	86	37	20
23	12	7.3	7.2	7.5	7.1	7.5	12	41	214	83	35	21
24	11	7.6	7.7	7.4	7.1	7.5	12	54	239	81	33	19
25	10	7.4	7.8	7.4	7.0	7.5	12	51	236	79	33	19
26	10	6.9	7.5	7.5	6.8	7.5	13	50	203	76	33	19
27	10	6.4	7.4	7.8	7.1	7.8	13	57	226	80	30	19
28	11	7.0	7.2	8.0	7.0	7.6	15	71	244	84	29	19
29	11	7.3	7.1	8.0	---	7.4	17	82	221	86	29	19
30	11	7.3	7.4	8.0	---	7.2	19	78	181	81	27	18
31	10	---	7.4	8.0	---	7.5	---	79	---	71	26	---
TOTAL	358	251.4	229.6	233.5	194.3	230.1	315.8	1100	5023	4003	1322	696
MEAN	11.5	8.38	7.41	7.53	6.94	7.42	10.5	35.5	167	129	42.6	23.2
MAX	13	13	7.9	8.0	8.3	7.8	19	82	244	236	66	32
MIN	10	6.2	6.8	6.6	6.3	7.0	7.2	18	84	71	26	18
AC-FT	710	499	455	463	385	456	626	2180	9960	7940	2620	1380

CAL YR 1981 TOTAL 8263.9 MEAN 22.6 MAX 208 MIN 6.2 AC-FT 16390
WTR YR 1982 TOTAL 13956.7 MEAN 38.2 MAX 244 MIN 6.2 AC-FT 27680

NOTE.--NO GAGE-HEIGHT RECORD NOV. 28 TO APR. 14.

09036000 WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°49'53", long 106°03'15", in sec.31, T.2 S., R.77 W., Grand County, Hydrologic Unit 14010001, on right bank at downstream side of bridge, 100 ft (30 m) downstream from Kinney Creek, and 1.7 mi (2.7 km) northwest of Leal.

DRAINAGE AREA.--89.3 mi^2 (231.3 km^2).

PERIOD OF RECORD.--July 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Prior to October 1958, published as Williams River near Leal.

REVISED RECORDS.--WSP 1733: 1951. WSP 2124: Drainage area. WRD Colo. 1973: 1972.

GAGE.--Water-stage recorder. Altitude of gage is 8,790 ft (2,679 m), from topographic map. Prior to Aug. 16, 1953, at site 15 ft (5 m) downstream at present datum.

REMARKS.--Records good, except those for winter period, which are fair. Transmountain diversion above station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres (809,000 m^2) of hay meadows above station and about 40 acres (162,000 m^2) below. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through August P. Gumlick Tunnel, furnished by Colorado Division of Water Resources.

AVERAGE DISCHARGE.--49 years, 101 ft^3/s (2.860 m^3/s), 73,170 acre-ft/yr (90.2 hm^3/yr), including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft^3/s (48.7 m^3/s) June 10, 1952, gage height, 4.23 ft (1.289 m); maximum gage height, 5.46 ft (1.664 m) June 29, 1971 (backwater from log); minimum daily discharge, 13 ft^3/s (0.37 m^3/s) at times in 1939, 1963, 1964, and 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 867 ft^3/s (24.6 m^3/s) at 0200 June 29, gage height, 3.54 ft (1.079 m); minimum daily, 16 ft^3/s (0.45 m^3/s) Feb. 7-20, 25-27, Mar. 1, 5-8, 13, 30, Apr. 3, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	44	23	24	20	16	18	55	220	757	166	56
2	31	42	24	23	20	17	18	70	222	742	193	53
3	37	42	24	23	21	17	16	82	217	693	186	50
4	44	41	23	22	20	17	18	93	210	650	153	48
5	48	41	24	21	18	16	17	88	248	615	137	75
6	46	41	24	21	17	16	18	64	267	581	126	72
7	33	43	24	20	16	16	18	56	275	530	117	59
8	35	43	24	21	16	16	16	56	304	503	108	56
9	42	40	24	21	16	17	18	64	322	500	124	56
10	40	22	24	21	16	17	17	78	337	473	110	50
11	41	20	24	21	16	17	19	78	334	458	113	55
12	44	20	25	21	16	17	20	84	359	447	131	79
13	44	22	24	21	16	16	21	72	376	440	119	72
14	44	23	25	20	16	17	24	62	386	430	117	72
15	44	23	25	20	16	18	26	61	383	417	101	68
16	46	23	25	20	16	17	27	61	376	389	105	61
17	46	24	25	20	16	17	23	62	427	376	91	54
18	46	22	24	21	16	17	27	69	451	355	98	52
19	44	22	24	20	16	17	26	76	403	340	103	49
20	41	21	25	20	16	17	22	79	389	325	101	49
21	37	25	24	21	17	17	21	80	420	310	115	46
22	40	24	24	20	17	17	24	103	444	292	110	44
23	38	24	23	19	17	17	27	124	477	278	106	44
24	43	24	25	20	17	17	27	131	511	222	100	43
25	42	24	23	20	16	18	27	128	557	210	94	41
26	39	22	23	20	16	17	29	130	590	220	78	44
27	46	21	24	20	16	18	29	151	581	220	68	43
28	44	23	24	20	17	18	30	175	727	246	66	43
29	44	24	24	20	---	18	36	205	782	295	69	44
30	44	24	24	20	---	16	40	205	747	261	66	44
31	44	---	24	20	---	17	---	200	---	177	64	---
TOTAL	1286	854	746	641	473	525	699	3042	12342	12752	3435	1622
MEAN	41.5	28.5	24.1	20.7	16.9	16.9	23.3	98.1	411	411	111	54.1
MAX	48	44	25	24	21	18	40	205	782	757	193	79
MIN	29	20	23	19	16	16	16	55	210	177	64	41
AC-FT	2550	1690	1480	1270	938	1040	1390	6030	24480	25290	6810	3220
a	206	164	110	119	105	148	181	714	4340	637	1240	710

CAL YR 1981 TOTAL 23136 MEAN 63.4 MAX 642 MIN 15 AC-FT 45890
WTR YR 1982 TOTAL 38417 MEAN 105 MAX 782 MIN 16 AC-FT 76200

a DIVERSIONS, IN ACRE-FEET, THROUGH AUGUST P. GUMLICK TUNNEL, FURNISHED BY COLORADO DIVISION OF WATER RESOURCES.

09037500 WILLIAMS FORK NEAR PARSHALL, CO

LOCATION.--Lat 40°00'01", long 106°10'45", in SW¼SW¼ sec.31, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on right bank 150 ft (46 m) downstream from bridge on State Highway 286, 3.7 mi (6.0 km) downstream from Skylark Creek, 3.9 mi (6.3 km) south of Parshall, and 4.2 mi (6.8 km) upstream from Williams Fork Reservoir Dam.

DRAINAGE AREA.--184 mi² (477 km²).

PERIOD OF RECORD.--July 1904 to September 1924, June 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Published as "near (Hot) Sulphur Springs" 1904-12 and as Williams River near Parshall June 1933 to September 1958.

REVISED RECORDS.--WSP 1243: 1918. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,808.95 ft (2,380.168 m) (Denver Board of Water Commissioners Datum). See WSP 1733 for history of changes prior to Aug. 9, 1938.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 1,300 acres (5.26 km²) above station and about 2,500 acres (10.1 km²) below. About 150 acres (607,000 m²) above station irrigated by diversions into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--69 years, 135 ft³/s (3.823 m³/s), 97,810 acre-ft/yr (121 hm³/yr), including diversion to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,620 ft³/s (74.2 m³/s) June 14, 1918, gage height, 6.05 ft (1.884 m), site and datum then in use, from rating curve extended above 1,400 ft³/s (40 m³/s); minimum daily, 4.8 ft³/s (0.14 m³/s) May 6, 8-10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s (36.5 m³/s) at 0600 June 29, gage height, 4.69 ft (1.430 m); minimum daily, 24 ft³/s (0.68 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	40	30	30	32	34	35	49	264	1050	194	81
2	37	36	30	30	32	33	33	60	271	1030	206	77
3	39	37	30	31	32	32	33	77	260	892	209	75
4	46	37	30	31	32	30	33	86	232	796	174	73
5	50	37	30	31	32	29	33	89	282	684	164	91
6	47	37	30	31	32	29	33	56	320	616	155	108
7	44	40	30	31	32	29	32	50	316	502	144	86
8	44	39	30	31	32	29	33	47	356	446	132	83
9	47	37	30	31	32	27	33	50	368	436	139	84
10	46	28	29	31	32	29	33	69	380	403	137	78
11	42	28	28	31	33	28	35	62	368	365	130	80
12	45	30	28	31	33	28	47	63	400	348	153	109
13	44	34	28	31	33	33	46	64	420	337	138	100
14	42	33	28	31	33	34	53	57	425	320	149	99
15	44	34	29	31	33	31	58	54	430	314	124	94
16	44	32	29	32	34	31	58	55	396	285	117	90
17	41	30	29	32	34	30	50	55	465	259	111	80
18	40	32	30	32	34	33	55	57	568	240	106	77
19	39	31	30	32	34	29	55	58	475	227	111	75
20	39	31	30	32	34	28	48	59	430	213	110	74
21	42	37	30	32	35	33	44	58	450	200	118	72
22	39	32	30	32	35	37	49	77	500	185	114	69
23	31	29	30	32	35	34	59	103	550	176	113	68
24	37	30	30	32	35	33	62	99	592	139	107	69
25	35	30	30	32	35	34	63	95	677	126	104	65
26	31	24	30	32	35	31	66	99	797	126	96	67
27	39	25	30	32	35	29	69	135	724	131	86	67
28	38	27	30	32	35	31	46	175	956	166	85	67
29	36	28	30	32	---	31	38	241	1100	299	93	67
30	38	29	30	32	---	28	37	250	1030	322	85	65
31	37	---	30	32	---	34	---	244	---	215	87	---
TOTAL	1261	974	918	975	935	961	1369	2793	14802	11848	3991	2390
MEAN	40.7	32.5	29.6	31.5	33.4	31.0	45.6	90.1	493	382	129	79.7
MAX	50	40	30	32	35	37	69	250	1100	1050	209	109
MIN	31	24	28	30	32	27	32	47	232	126	85	*65
AC-FT	2500	1930	1820	1930	1850	1910	2720	5540	29360	23500	7920	4740

CAL YR 1981 TOTAL 18572.3 MEAN 50.9 MAX 646 MIN 9.0 AC-FT 36840
WTR YR 1982 TOTAL 43217.0 MEAN 118 MAX 1100 MIN 24 AC-FT 85720

09038000 WILLIAMS FORK RESERVOIR NEAR PARSHALL, CO

LOCATION.--Lat 40°02'06", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, at dam on Williams Fork, 2.1 mi (3.4 km) upstream from mouth, and 2.2 mi (3.5 km) southwest of Parshall.

DRAINAGE AREA.--230 mi² (596 km²).

PERIOD OF RECORD.--April 1939 to current year. Prior to October 1948, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city engineer of Denver); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by concrete-arch dam completed in October 1938; storage began April 1939; dam was enlarged Dec. 5, 1956, to Apr. 22, 1959. Enlarged capacity, 96,820 acre-ft (119 hm³) between elevations 7,634 ft (2,326.8 m), invert of outlet, and 7,811 ft (2,380.8 m), top of radial gates on spillway. No dead storage. Figures given represent usable contents. Reservoir is used for power development and to store water to compensate for water diverted through August P. Gumlick Tunnel. Water is released during periods of low flow in Colorado River to supply decreed prior water rights. Records furnished by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 97,130 acre-ft (120 hm³) July 9, 1962, elevation, 7,811.19 ft (2,380.851 m); no contents at times in 1958 (construction) and 1966 (drained for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 90,670 acre-ft (112 hm³) July 21, 22, Aug. 1, 2, elevation, 7,807.10 ft (2,379.604 m); minimum, 34,440 acre-ft (42.5 hm³) Apr. 22-24, elevation, 7,757.00 ft (2,364.334 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	7,773.90	49,490	-
Oct. 31.	7,765.40	41,500	-7,990
Nov. 30.	7,761.09	37,770	-3,730
Dec. 31.	7,760.49	37,270	-500
CAL YR 1981		-	-34,590
Jan. 31.	7,759.27	36,260	-1,010
Feb. 28.	7,758.54	35,670	-590
Mar. 31.	7,757.88	35,140	-530
Apr. 30.	7,757.48	34,820	-320
May 31.	7,765.10	41,240	+6,420
June 30.	7,793.60	71,760	+30,520
July 31.	7,807.09	90,650	+18,890
Aug. 31.	7,803.12	84,740	-5,910
Sept. 30.	7,796.29	75,280	-9,460
WTR YR 1982			+25,790

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO

LOCATION.--Lat 40°02'07", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, on left bank 400 ft (120 m) downstream from Williams Fork Reservoir, 2.1 mi (3.4 km) upstream from mouth, and 2.1 mi (3.4 km) southwest of Parshall.

DRAINAGE AREA.--230 mi^2 (596 km^2).

PERIOD OF RECORD.--October 1948 to September 1954, August 1958 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1958, published as Williams River below Williams Fork Reservoir.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,615.0 ft (2,321.05 m) (Denver Board of Water Commissioners Datum). See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1959.

REMARKS.--Records good. Flow regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 3,200 acres (13.0 km^2) above station and about 100 acres (405,000 m^2) below. About 450 acres (1.82 km^2) above station irrigated by diversion into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 121 ft^3/s (3.427 m^3/s), 87,660 acre-ft/yr (108 hm^3/yr), adjusted for storage in Williams Fork Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft^3/s (74.8 m^3/s) June 20, 1953, gage height, 8.50 ft (2.591 m), site and datum then in use, from rating curve extended above 1,500 ft^3/s (42 m^3/s); no flow for part of Apr. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 330 ft^3/s (9.35 m^3/s) at 0715 Oct. 1, gage height, 2.67 ft (0.814 m); minimum daily, 13 ft^3/s (0.37 m^3/s) May 6-18, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	330	119	54	56	48	47	49	14	27	24	229	235
2	332	119	45	56	48	47	49	14	27	24	230	236
3	334	118	45	56	47	47	49	14	27	23	232	237
4	334	117	44	56	47	47	48	14	27	23	231	237
5	332	118	44	55	48	47	48	14	25	23	230	238
6	281	119	45	55	48	47	48	13	25	22	231	237
7	258	119	45	54	50	48	48	13	26	23	233	237
8	258	119	45	55	51	48	53	13	26	23	235	237
9	195	121	45	56	51	47	56	13	26	23	234	236
10	157	123	45	56	49	47	56	13	28	23	237	237
11	157	122	44	57	44	47	56	13	29	24	234	235
12	157	121	44	56	45	47	56	13	29	24	233	235
13	137	118	45	56	46	47	56	13	30	24	235	236
14	117	117	45	56	45	47	66	13	30	24	236	237
15	118	119	45	56	45	47	89	13	30	23	236	237
16	130	121	45	56	45	54	100	13	27	23	237	237
17	150	105	45	55	44	61	100	13	24	23	237	237
18	148	104	45	56	44	63	100	13	24	23	236	237
19	147	104	45	56	44	63	100	14	24	147	236	237
20	147	88	44	56	44	63	85	13	23	222	237	238
21	146	75	44	56	45	63	75	14	24	222	236	239
22	126	75	44	56	45	55	65	14	24	221	237	239
23	116	75	44	56	45	50	59	14	24	221	236	238
24	116	75	43	56	45	50	59	14	24	223	235	237
25	118	75	43	56	45	50	59	14	24	225	235	237
26	119	75	43	56	45	50	59	14	24	226	235	239
27	119	72	43	53	45	50	59	14	24	227	235	241
28	119	69	43	49	46	49	38	14	24	226	235	241
29	119	70	47	48	---	49	14	14	24	229	237	239
30	119	64	55	48	---	49	14	14	24	229	237	239
31	119	---	56	48	---	49	---	22	---	229	236	---
TOTAL	5555	3036	1409	1697	1294	1575	1813	428	776	3266	7273	7122
MEAN	179	101	45.5	54.7	46.2	50.8	60.4	13.8	25.9	105	235	237
MAX	334	123	56	57	51	63	100	22	30	229	237	241
MIN	116	64	43	48	44	47	14	13	23	22	229	235
AC-FT	11020	6020	2790	3370	2570	3120	3600	849	1540	6480	14430	14130

CAL YR 1981 TOTAL 43089 MEAN 118 MAX 364 MIN 14 AC-FT 85470
WTR YR 1982 TOTAL 35244 MEAN 96.6 MAX 334 MIN 13 AC-FT 69910

09039000 TROUBLESOME CREEK NEAR PEARMONT, CO

LOCATION.--Lat 40°13'03", long 106°18'45", in SE¼ sec.14, T.3 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 45 ft (14 m) downstream from small tributary, 3 mi (5 km) north of Pearmont, 4 mi (6 km) downstream from Rabbit Ear Creek, 5.2 mi (8.4 km) upstream from East Fork, and 12 mi (19 km) northeast of Kremmling.

DRAINAGE AREA.--44.6 mi² (115.5 km²).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,049 ft (2,453.3 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. One diversion above station for irrigation of about 250 acres (1.01 km²) below. Flow partly regulated during irrigation season by one reservoir, capacity, 1,070 acre-ft (1.32 hm³) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 29.2 ft³/s (0.827 m³/s), 21,160 acre-ft/yr (26.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 507 ft³/s (14.4 m³/s) June 20, 1978, gage height, 2.63 ft (0.802 m); maximum gage height, 3.93 ft (1.198 m) Mar. 31, 1965 (backwater from ice); minimum daily discharge, 4.5 ft³/s (0.13 m³/s) Dec. 20-24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 183 ft³/s (5.18 m³/s) at 1900 May 30, gage height, 1.92 ft (0.585 m); maximum gage height, 2.75 ft (0.838 m) at 0800 Feb. 26 (backwater from ice); minimum daily discharge, 7.8 ft³/s (0.22 m³/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	12	11	10	10	10	27	143	105	30	18
2	12	13	12	10	10	10	10	28	141	88	29	17
3	13	13	11	10	10	10	10	31	143	78	27	17
4	13	13	10	10	10	10	10	33	134	71	26	18
5	13	13	9.5	10	10	10	10	31	141	66	24	18
6	13	13	9.0	10	10	10	10	28	150	64	23	17
7	12	13	8.5	10	10	10	10	27	144	56	22	17
8	13	13	7.8	10	10	10	10	27	147	52	21	18
9	13	12	8.5	10	10	10	10	28	152	52	21	18
10	13	13	9.6	10	10	10	10	29	150	49	20	17
11	13	14	8.5	10	10	10	10	30	143	45	21	23
12	14	15	9.1	10	10	10	11	33	142	46	22	26
13	14	13	11	10	10	10	11	33	144	46	23	21
14	14	13	11	10	10	10	11	33	146	47	24	20
15	13	13	11	10	10	10	12	33	142	47	25	20
16	14	13	11	10	10	10	12	34	141	45	24	20
17	13	12	11	10	10	10	13	34	141	44	23	19
18	13	12	11	10	10	10	13	38	144	43	23	18
19	13	12	11	10	10	10	14	44	140	40	22	18
20	13	12	11	10	10	10	14	54	136	38	21	18
21	13	12	11	10	10	10	15	59	132	30	20	18
22	13	12	11	10	10	10	16	87	133	24	19	17
23	12	12	11	10	10	10	16	103	131	23	19	18
24	13	13	12	10	10	10	17	121	131	22	18	17
25	14	12	11	10	10	10	18	121	128	22	17	17
26	14	12	11	10	10	10	19	115	124	23	17	18
27	13	12	11	10	10	10	18	123	120	31	16	18
28	13	12	11	10	10	10	19	139	117	36	16	17
29	13	12	11	10	---	10	21	159	116	34	15	18
30	13	12	11	10	---	10	23	172	115	34	16	17
31	13	---	11	10	---	10	---	157	---	32	17	---
TOTAL	405	379	325.5	311	280	310	403	2011	4111	1433	661	553
MEAN	13.1	12.6	10.5	10.0	10.0	10.0	13.4	64.9	137	46.2	21.3	18.4
MAX	14	15	12	11	10	10	23	172	152	105	30	26
MIN	12	12	7.8	10	10	10	10	27	115	22	15	17
AC-FT	803	752	646	617	555	615	799	3990	8150	2840	1310	1100

CAL YR 1981 TOTAL 6190.5 MEAN 17.0 MAX 59 MIN 7.8 AC-FT 12280
WTR YR 1982 TOTAL 11182.5 MEAN 30.6 MAX 172 MIN 7.8 AC-FT 22180

NOTE.--NO GAGE-HEIGHT RECORD MAR. 4 TO APR. 21, JULY 30 TO AUG. 31.

09040000 EAST FORK TROUBLESOME CREEK NEAR TROUBLESOME, CO

LOCATION.--Lat 40°09'27", long 106°16'58", in NW¼ sec.7, T.2 N., R.79 W., Grand County, Hydrologic Unit 14010001, on right bank 400 ft (120 m) upstream from mouth and 6.5 mi (10.5 km) north of Troublesome.

DRAINAGE AREA.--76.0 mi² (196.8 km²).

PERIOD OF RECORD.--April 1937 to September 1943, October 1953 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,670 ft (2,338 m), from topographic map. See WSP 1733 for history of changes prior to Oct. 1, 1953. Oct. 1, 1953, to July 21, 1966, at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--35 years, 28.1 ft³/s (0.796 m³/s), 20,360 acre-ft/yr (25.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 795 ft³/s (22.5 m³/s) May 25, 1978, gage height, 5.66 ft (1.725 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Oct. 3, 1941, Sept. 2, 3, 26, 27, 1942.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s (4.8 m³/s), and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 4	0300	205	5.81	4.62	1.408	May 29	0100	* 291	8.24	4.94	1.506

Minimum daily discharge, 2.9 ft³/s (0.082 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	6.9	5.2	4.6	5.0	4.8	7.1	102	153	21	9.3	5.7
2	2.9	7.0	5.4	4.5	5.0	4.8	7.3	126	214	20	8.2	4.2
3	3.4	6.5	5.5	4.7	5.0	4.5	6.7	164	202	18	9.5	3.5
4	5.3	6.6	5.7	4.6	5.0	4.3	6.7	189	175	17	8.4	3.1
5	11	6.4	6.4	4.6	5.0	4.5	7.2	163	182	15	7.8	3.6
6	8.7	6.0	6.1	4.7	4.5	4.5	6.8	113	207	14	7.5	5.3
7	6.6	6.4	6.0	4.0	4.5	4.5	6.3	90	188	13	7.2	4.8
8	5.9	7.4	6.0	4.3	4.5	5.0	7.5	77	178	12	6.5	4.3
9	7.7	6.7	5.9	4.5	4.5	3.9	7.2	86	170	11	7.5	5.4
10	7.2	6.2	5.3	4.8	4.5	4.5	5.7	98	143	10	7.5	4.6
11	6.2	5.8	4.9	5.0	4.5	4.1	9.5	107	112	9.5	7.1	5.8
12	11	6.8	5.2	5.2	4.5	4.4	17	108	107	9.0	6.8	27
13	12	6.3	5.1	5.4	4.5	4.5	20	90	106	8.2	6.9	14
14	11	5.4	4.9	5.6	4.5	4.8	53	75	105	7.6	8.9	19
15	11	6.3	4.9	5.5	4.5	5.3	66	67	98	7.3	8.4	15
16	12	6.1	5.0	5.2	4.5	5.1	63	61	99	6.7	8.2	11
17	11	5.8	4.5	5.0	4.5	5.3	52	62	86	7.2	6.5	9.0
18	9.0	5.2	4.6	5.0	4.5	4.4	54	63	96	8.5	5.8	9.1
19	7.7	6.1	4.7	5.0	4.5	4.7	41	75	88	9.6	5.3	7.5
20	6.9	7.7	4.8	5.0	4.5	4.7	32	84	75	8.9	5.1	8.6
21	6.4	5.4	4.9	5.0	4.5	4.7	26	91	66	8.8	5.4	7.6
22	5.9	6.0	4.6	5.0	4.5	4.7	23	120	59	9.1	4.9	7.1
23	5.3	5.6	4.7	5.0	4.5	4.7	35	142	57	8.9	5.5	8.0
24	5.5	5.4	4.5	5.0	4.5	4.9	42	161	53	8.9	5.4	8.8
25	7.2	5.1	4.5	5.0	5.0	4.6	52	160	47	9.5	4.2	6.9
26	6.5	5.0	4.5	5.0	5.3	4.7	59	136	46	9.9	4.2	8.3
27	6.0	5.0	4.5	5.0	4.9	5.7	56	154	39	10	4.1	9.2
28	6.7	4.9	4.5	5.0	4.7	6.2	48	217	35	11	3.6	8.8
29	7.0	5.0	4.5	5.0	---	6.1	62	246	25	12	4.7	10
30	7.8	5.0	4.6	5.0	---	6.3	70	209	23	15	6.4	11
31	7.3	---	4.6	5.0	---	7.0	---	173	---	11	7.1	---
TOTAL	231.1	180.0	156.5	152.2	130.4	152.2	949.0	3809	3234	347.6	203.9	256.2
MEAN	7.45	6.00	5.05	4.91	4.66	4.91	31.6	123	108	11.2	6.58	8.54
MAX	12	7.7	6.4	5.6	5.3	7.0	70	246	214	21	9.5	27
MIN	2.9	4.9	4.5	4.0	4.5	3.9	5.7	61	23	6.7	3.6	3.1
AC-FT	458	357	310	302	259	302	1880	7560	6410	689	404	508

CAL YR 1981 TOTAL 3247.34 MEAN 8.90 MAX 162 MIN .70 AC-FT 6440
WTR YR 1982 TOTAL 9802.10 MEAN 26.9 MAX 246 MIN 2.9 AC-FT 19440

NOTE.--NO GAGE-HEIGHT RECORD JAN. 18 TO FEB. 24.

09041500 MUDDY CREEK AT KREMMLING, CO

LOCATION.--Lat 40°03'37", long 106°23'48", in SW¼SE¼ sec. 7, T.1 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 450 ft (140 m) upstream from U.S. Highway 40 bridge at Kremmling and 2.8 mi (4.5 km) upstream from mouth.

DRAINAGE AREA.--290 mi² (751 km²).

PERIOD OF RECORD.--August to October 1904, April to October 1905. Monthly discharge only in WSP 1313. April to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 7,340 ft (2,237 m) from topographic map. Supplementary recorder on diversion ditch about 2,000 ft (186 m) downstream from point of diversion.

REMARKS.--Records good. Records include flow of diversion ditch. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum combined discharge, 870 m³/s (24.6 m³/s) May 30, 1982; minimum daily, 1 ft³/s (0.002 m³/s) Sept. 24, 25, 1905.

EXTREMES FOR CURRENT PERIOD.--May to September: Maximum combined discharge, 870 ft³/s (24.6 m³/s) May 30, minimum daily, 20 ft³/s (0.57 m³/s) Aug. 28, Sept. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	213	775	199	47	23
2							---	252	752	183	42	22
3							---	331	731	168	39	21
4							---	430	714	151	36	21
5							---	495	670	145	32	22
6							---	378	689	151	29	24
7							---	367	680	163	25	24
8							---	326	618	141	25	24
9							---	339	634	136	30	24
10							---	364	616	170	24	24
11							---	389	597	138	32	28
12							---	453	585	120	33	59
13							---	468	586	106	41	47
14							---	387	537	88	43	43
15							---	372	481	104	36	36
16							---	365	467	91	33	35
17							---	390	469	86	30	31
18							---	405	499	90	30	28
19							---	458	469	89	29	26
20							---	512	409	80	28	24
21							52	537	373	59	26	24
22							54	571	351	55	25	24
23							55	623	335	53	24	23
24							74	684	311	48	23	21
25							98	732	288	49	22	21
26							143	676	261	55	21	21
27							143	669	247	56	21	20
28							131	734	218	69	20	20
29							143	781	211	77	21	21
30							155	823	188	71	22	21
31							---	851	---	58	22	---
TOTAL							---	15375	14761	3249	911	802
MEAN							---	496	492	105	29.4	26.7
MAX							---	851	775	199	47	59
MIN							---	213	188	48	20	20
AC-FT							---	30500	29280	6440	1810	1590

09041900 MONTE CRISTO DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'15", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1,800 ft (550 m) downstream from diversion point, 1.4 mi (2.3 km) northwest of Hoosier Pass, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW¼NE¼ sec.2, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 73 ft³/s (2.07 m³/s) Aug. 12-14, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	14	6.5	17	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	12	5.7	18	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	6.1	4.9	16	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	5.0	4.9	15	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	5.9	4.3	14	3.5
6	.00	.00	.00	.00	.00	.00	.00	.00	5.9	4.2	13	22
7	.00	.00	.00	.00	.00	.00	.00	.00	5.4	3.4	12	29
8	.00	.00	.00	.00	.00	.00	.00	.00	5.7	3.2	12	43
9	.00	.00	.00	.00	.00	.00	.00	.00	5.9	3.8	13	42
10	.00	.00	.00	.00	.00	.00	.00	.00	6.3	3.6	12	41
11	.00	.00	.00	.00	.00	.00	.00	.00	6.1	3.1	12	42
12	.00	.00	.00	.00	.00	.00	.00	.00	6.9	2.8	11	42
13	.00	.00	.00	.00	.00	.00	.00	.00	7.9	2.8	.00	42
14	.00	.00	.00	.00	.00	.00	.00	.00	7.5	2.4	.00	40
15	.00	.00	.00	.00	.00	.00	.00	.00	6.3	2.3	.00	40
16	.00	.00	.00	.00	.00	.00	.00	.00	6.1	2.4	.00	39
17	.00	.00	.00	.00	.00	.00	.00	.00	7.9	2.2	.00	38
18	.00	.00	.00	.00	.00	.00	.00	.00	8.7	2.2	.00	37
19	.00	.00	.00	.00	.00	.00	.00	.00	6.9	16	.00	37
20	.00	.00	.00	.00	.00	.00	.00	.00	5.7	24	8.7	16
21	.00	.00	.00	.00	.00	.00	.00	.00	5.9	23	26	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	6.7	23	20	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	7.1	22	23	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	7.5	8.1	18	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	7.3	5.0	15	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	6.5	3.7	20	.00
27	.00	.00	.00	.00	.00	.00	.00	5.5	7.3	3.0	15	.00
28	.00	.00	.00	.00	.00	.00	.00	13	6.9	6.2	5.4	.00
29	.00	.00	.00	.00	---	.00	.00	16	5.9	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	15	6.7	.00	.00	3.5
31	.00	---	.00	.00	---	.00	---	12	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	61.50	210.0	198.70	316.10	557.00
MEAN	.000	.000	.000	.000	.000	.000	.000	1.98	7.00	6.41	10.2	18.6
MAX	.00	.00	.00	.00	.00	.00	.00	16	14	24	26	43
MIN	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	122	417	394	627	1100

CAL YR 1981 TOTAL 1136.58 MEAN 3.11 MAX 62 MIN .00 AC-FT 2250
WTR YR 1982 TOTAL 1343.30 MEAN 3.68 MAX 43 MIN .00 AC-FT 2660

09044300 BEMROSE-HOOSIER DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'50", long 106°04'13", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank at entrance to Hoosier Pass tunnel, 1.4 mi (2.3 km) northwest of Hoosier Pass, 1.6 mi (2.6 km) downstream from diversion point on Bemrose Creek, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Bemrose and Hoosier Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in SW¼SW¼ sec.6, T.8 S., R.77 W., and in sec.12, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft³/s (1.25 m³/s) June 21, 1965; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	7.6	19	4.7	3.2
2	.00	.00	.00	.00	.00	.00	.00	.00	7.8	18	4.5	3.2
3	.00	.00	.00	.00	.00	.00	.00	.00	7.2	16	4.3	2.9
4	.00	.00	.00	.00	.00	.00	.00	.00	7.2	15	4.5	2.9
5	.00	.00	.00	.00	.00	.00	.00	.00	9.1	14	4.1	3.2
6	.00	.00	.00	.00	.00	.00	.00	.00	9.7	12	4.0	2.9
7	.00	.00	.00	.00	.00	.00	.00	.00	10	11	3.7	2.6
8	.00	.00	.00	.00	.00	.00	.00	.00	12	10	3.3	2.3
9	.00	.00	.00	.00	.00	.00	.00	.00	13	10	3.2	1.5
10	.00	.00	.00	.00	.00	.00	.00	.00	14	10	3.3	1.5
11	.00	.00	.00	.00	.00	.00	.00	.00	16	9.5	3.2	2.2
12	.00	.00	.00	.00	.00	.00	.00	.00	17	9.1	4.0	2.0
13	.00	.00	.00	.00	.00	.00	.00	.00	18	9.1	4.1	1.9
14	.00	.00	.00	.00	.00	.00	.00	.00	19	8.6	3.5	1.7
15	.00	.00	.00	.00	.00	.00	.00	.00	19	8.0	4.0	1.9
16	.00	.00	.00	.00	.00	.00	.00	.00	19	7.6	3.8	1.9
17	.00	.00	.00	.00	.00	.00	.00	.00	20	7.6	4.1	1.7
18	.00	.00	.00	.00	.00	.00	.00	.00	20	7.2	4.8	1.6
19	.00	.00	.00	.00	.00	.00	.00	.00	18	6.7	5.6	1.6
20	.00	.00	.00	.00	.00	.00	.00	.00	16	6.1	5.7	1.7
21	.00	.00	.00	.00	.00	.00	.00	.00	16	5.9	5.4	1.1
22	.00	.00	.00	.00	.00	.00	.00	.00	18	5.6	4.8	.42
23	.00	.00	.00	.00	.00	.00	.00	.00	19	5.4	4.8	.36
24	.00	.00	.00	.00	.00	.00	.00	.00	20	5.2	4.7	.30
25	.00	.00	.00	.00	.00	.00	.00	.00	21	5.2	4.8	.24
26	.00	.00	.00	.00	.00	.00	.00	.00	20	5.4	4.3	.24
27	.00	.00	.00	.00	.00	.00	.00	2.8	20	5.4	4.3	.24
28	.00	.00	.00	.00	.00	.00	.00	5.4	21	5.9	4.0	.18
29	.00	.00	.00	.00	---	.00	.00	6.3	20	6.1	3.8	.18
30	.00	.00	.00	.00	---	.00	.00	6.3	19	5.9	3.7	.10
31	.00	---	.00	.00	---	.00	---	6.7	---	5.0	3.5	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	27.50	473.6	275.5	130.5	47.76
MEAN	.000	.000	.000	.000	.000	.000	.000	.89	15.8	8.89	4.21	1.59
MAX	.00	.00	.00	.00	.00	.00	.00	6.7	21	19	5.7	3.2
MIN	.00	.00	.00	.00	.00	.00	.00	.00	7.2	5.0	3.2	.10
AC-FT	.00	.00	.00	.00	.00	.00	.00	55	939	546	259	95

CAL YR 1981 TOTAL 246.35 MEAN .67 MAX 7.0 MIN .00 AC-FT 489
WTR YR 1982 TOTAL 954.86 MEAN 2.62 MAX 21 MIN .00 AC-FT 1890

09044800 MCCULLOUGH-SPRUCE-CRYSTAL DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'14", in NE¼SE¼ sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1.4 mi (2.3 km) northwest of Hoosier Pass, 1.6 mi (2.6 km) downstream from diversion point on McCullough Gulch, and 7 mi (11 km) southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1961, published as McCullough diversion near Hoosier Pass.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft (3,348.5 m), from topographic map.

REMARKS.--Records good. This is a transmountain diversion from McCullough Gulch and Spruce and Crystal Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in secs.14, 23, and 26, T.7 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 123 ft³/s (3.48 m³/s) June 20, 1968; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	24	84	3.0	.50
2	.00	.00	.00	.00	.00	.00	.00	.00	25	78	5.0	.50
3	.00	.00	.00	.00	.00	.00	.00	.00	21	72	7.0	.50
4	.00	.00	.00	.00	.00	.00	.00	.00	18	70	9.0	.50
5	.00	.00	.00	.00	.00	.00	.00	.00	27	62	4.6	.45
6	.00	.00	.00	.00	.00	.00	.00	.00	27	54	18	.45
7	.00	.00	.00	.00	.00	.00	.00	.00	27	45	17	.45
8	.00	.00	.00	.00	.00	.00	.00	.00	35	48	16	.40
9	.00	.00	.00	.00	.00	.00	.00	.00	41	50	16	.40
10	.00	.00	.00	.00	.00	.00	.00	.00	44	46	16	.40
11	.00	.00	.00	.00	.00	.00	.00	.00	41	48	15	.40
12	.00	.00	.00	.00	.00	.00	.00	.00	47	54	33	.40
13	.00	.00	.00	.00	.00	.00	.00	.00	53	55	4.9	.40
14	.00	.00	.00	.00	.00	.00	.00	.00	45	58	2.2	.30
15	.00	.00	.00	.00	.00	.00	.00	.00	43	48	.83	.30
16	.00	.00	.00	.00	.00	.00	.00	.00	45	27	.72	.30
17	.00	.00	.00	.00	.00	.00	.00	.00	60	26	1.2	.20
18	.00	.00	.00	.00	.00	.00	.00	.00	48	27	1.2	.20
19	.00	.00	.00	.00	.00	.00	.00	.00	34	26	2.7	.10
20	.00	.00	.00	.00	.00	.00	.00	.00	52	25	2.2	.10
21	.00	.00	.00	.00	.00	.00	.00	.00	46	24	.72	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	56	26	.72	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	60	26	.72	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	72	24	.83	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	80	23	.72	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	74	21	.61	.00
27	.00	.00	.00	.00	.00	.00	.00	6.2	81	22	.61	.00
28	.00	.00	.00	.00	.00	.00	.00	16	99	15	.72	.00
29	.00	.00	.00	.00	---	.00	.00	21	93	.94	.61	.00
30	.00	.00	.00	.00	---	.00	.00	22	87	1.5	.61	.00
31	.00	---	.00	.00	---	.00	---	19	---	2.0	.61	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	84.20	1505	1188.44	183.03	7.25
MEAN	.000	.000	.000	.000	.000	.000	.000	2.72	50.2	38.3	5.90	.24
MAX	.00	.00	.00	.00	.00	.00	.00	22	99	84	33	.50
MIN	.00	.00	.00	.00	.00	.00	.00	.00	18	.94	.61	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	167	2990	2360	363	14

CAL YR 1981 TOTAL 1434.01 MEAN 3.93 MAX 82 MIN .00 AC-FT 2840
WTR YR 1982 TOTAL 2967.92 MEAN 8.13 MAX 99 MIN .00 AC-FT 5890

09046600 BLUE RIVER NEAR DILLON, CO

LOCATION.--Lat 39°32'55", long 106°02'19", in NW¼NE¼ sec.7, T.6 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.2 mi (0.3 km) downstream from Swan River and 5.5 mi (8.8 km) south of Dillon.

DRAINAGE AREA.--119 mi² (308 km²).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,120 ft (2,780 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Transmountain diversions above station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 98.2 ft³/s (2.781 m³/s), 71,150 acre-ft/yr (87.7 hm³/yr), including diversion to Hoosier Pass tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) June 17, 1965, gage height, 5.38 ft (1.640 m), from rating curve extended above 610 ft³/s (17 m³/s); minimum daily, 17 ft³/s (0.48 m³/s) Mar. 21, 1961, Feb. 24-26, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 415 ft³/s (11.8 m³/s) at 1900 June 10, gage height, 3.90 ft (1.189 m); minimum daily, 26 ft³/s (0.74 m³/s) April 4-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	43	36	34	32	30	27	64	304	355	221	106
2	53	43	36	34	31	30	27	77	326	345	192	105
3	53	42	36	34	31	30	27	95	331	326	168	99
4	52	42	36	33	31	30	26	118	319	310	154	97
5	52	42	36	33	31	29	26	141	311	298	147	97
6	52	41	36	33	30	29	26	141	321	287	141	98
7	52	41	35	33	30	29	26	125	326	276	130	106
8	51	40	35	33	30	29	26	110	337	261	119	102
9	50	40	35	33	30	29	26	106	354	249	112	97
10	49	39	34	33	30	29	26	111	379	244	106	97
11	49	39	35	33	30	29	26	122	382	231	104	95
12	48	39	35	33	30	29	29	134	358	217	107	101
13	48	38	35	33	30	29	30	135	360	207	116	119
14	47	37	34	32	30	29	32	128	377	197	171	115
15	47	37	35	32	29	29	35	120	370	188	198	112
16	47	37	35	32	29	29	37	116	358	183	165	106
17	48	37	34	32	29	29	37	110	352	195	157	101
18	50	37	34	32	29	29	39	110	376	197	186	99
19	50	37	34	32	30	29	40	113	384	186	208	97
20	49	36	34	33	30	29	39	117	350	179	210	97
21	48	36	34	33	30	28	38	119	323	173	219	97
22	47	36	34	32	30	28	38	125	322	167	171	96
23	46	36	34	32	30	28	38	137	330	160	145	94
24	46	36	34	32	30	28	41	157	343	159	138	90
25	46	36	35	32	30	28	43	178	351	162	126	89
26	45	36	35	31	30	28	45	194	359	174	132	87
27	45	37	35	32	30	28	47	193	351	171	127	86
28	44	36	34	31	30	28	48	208	357	176	121	85
29	43	36	34	31	---	28	50	240	365	213	113	83
30	43	36	34	32	---	28	56	284	364	271	110	82
31	43	---	34	32	---	28	---	303	---	263	109	---
TOTAL	1496	1148	1077	1007	842	892	1051	4431	10440	7020	4623	2935
MEAN	48.3	38.3	34.7	32.5	30.1	28.8	35.0	143	348	226	149	97.8
MAX	53	43	36	34	32	30	56	303	384	355	221	119
MIN	43	36	34	31	29	28	26	64	304	159	104	82
AC-FT	2970	2280	2140	2000	1670	1770	2080	8790	20710	13920	9170	5820

CAL YR 1981 TOTAL 20487 MEAN 56.1 MAX 237 MIN 22 AC-FT 40640
WTR YR 1982 TOTAL 36962 MEAN 101 MAX 384 MIN 26 AC-FT 73310

NOTE.--NO GAGE-HEIGHT RECORD FEB. 26 TO APR. 8.

09047500 SNAKE RIVER NEAR MONTEZUMA, CO

LOCATION.--Lat 39°36'20", long 105°56'33", in NW¼ sec.19, T.5 S., R.76 W. (projected), Summit County, Hydrologic Unit 14010002, on right bank 200 ft (61 m) downstream from North Fork and 4.5 mi (7.2 km) northwest of Montezuma.

DRAINAGE AREA.--57.7 mi² (149 km²).

PERIOD OF RECORD.--July 1942 to September 1946, October 1951 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,320 ft (2,841 m), from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Small diversions above station for irrigation and domestic use. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--35 years, 59.7 ft³/s (1.691 m³/s), 43,250 acre-ft/yr (53.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) June 10, 1952, gage height, 3.51 ft (1.070 m); maximum gage height, 3.88 ft (1.183 m) June 6, 1972; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 515 ft³/s (14.6 m³/s) at 2000 June 28, gage height, 3.31 ft (1.009 m), only peak above base of 500 ft³/s (14 m³/s); minimum daily, 12 ft³/s (0.34 m³/s) Dec. 31 to Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	24	18	12	12	13	13	28	164	438	135	63
2	26	24	18	12	12	13	13	33	172	419	129	60
3	28	24	18	12	12	13	13	39	167	394	124	58
4	28	23	16	12	12	13	13	46	165	376	122	57
5	28	23	14	12	12	13	13	45	207	340	116	66
6	26	23	15	12	12	13	13	40	227	312	108	62
7	25	24	15	12	12	13	13	36	232	277	101	57
8	25	24	15	12	12	13	13	33	268	261	96	57
9	26	24	15	12	12	13	13	36	274	257	93	57
10	25	25	15	12	12	13	13	43	278	242	93	53
11	24	25	15	12	12	13	13	44	273	242	94	62
12	25	25	15	12	12	13	13	41	294	242	103	68
13	25	24	15	12	12	13	15	37	310	236	123	64
14	25	23	15	12	12	13	17	34	314	230	116	64
15	26	23	15	12	12	13	19	32	303	223	100	62
16	29	21	15	12	12	13	16	32	316	206	94	59
17	27	23	15	12	12	13	17	33	358	199	114	55
18	27	22	15	12	12	13	16	36	352	191	126	54
19	25	23	13	12	12	13	16	38	284	181	119	56
20	25	22	13	12	12	13	16	37	282	173	118	59
21	25	20	13	12	13	13	16	41	320	163	114	55
22	24	20	13	12	13	13	16	52	359	157	109	53
23	23	20	13	12	13	13	16	61	379	154	99	55
24	24	19	13	12	13	13	16	69	394	152	93	53
25	24	19	13	12	13	13	16	68	396	152	91	52
26	24	18	13	12	13	13	16	66	385	155	87	52
27	25	19	13	12	13	13	16	77	399	158	80	51
28	24	18	13	12	13	13	17	101	440	182	77	50
29	25	18	13	12	---	13	17	133	454	189	73	49
30	24	18	13	12	---	13	22	140	444	173	69	48
31	23	---	12	12	---	13	---	143	---	148	67	---
TOTAL	787	658	447	372	344	403	456	1694	9210	7222	3183	1711
MEAN	25.4	21.9	14.4	12.0	12.3	13.0	15.2	54.6	307	233	103	57.0
MAX	29	25	18	12	13	13	22	143	454	438	135	68
MIN	23	18	12	12	12	13	13	28	164	148	57	48
AC-FT	1560	1310	887	738	682	799	904	3360	18270	14320	6310	3390

CAL YR 1981 TOTAL 13771.5 MEAN 37.7 MAX 247 MIN 9.0 AC-FT 27320
WTR YR 1982 TOTAL 26487.0 MEAN 72.6 MAX 454 MIN 12 AC-FT 52540

NOTE.--NO GAGE-HEIGHT RECORD DEC. 24 TO APR. 13.

09047700 KEYSTONE GULCH NEAR DILLON, CO

LOCATION.--Lat 39°35'40", long 105°58'19", in NE¼NE¼ sec.26, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.7 mi (1.1 km) upstream from mouth and 4.7 mi (7.6 km) southeast of Dillon.

DRAINAGE AREA.--9.10 mi^2 (23.6 km^2).

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,350 ft (2,850 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No known diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 5.54 ft^3/s (0.157 m^3/s), 4,010 acre-ft/yr (4.94 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 ft^3/s (2.55 m^3/s) June 5, 1958, gage height, 2.75 ft (0.838 m), from rating curve extended above 28 ft^3/s (0.80 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 46 ft^3/s (1.30 m^3/s) at 2000 June 5, gage height, 2.51 ft (0.765 m), only peak above base of 35 ft^3/s (0.99 m^3/s), maximum gage height, 2.5 ft (0.765 m) at 1900 June 8; minimum daily discharge, 1.8 ft^3/s (0.051 m^3/s) Feb. 8-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	2.0	2.0	1.9	1.9	2.0	2.9	28	28	7.8	5.0
2	1.8	2.2	2.0	2.0	1.9	1.9	2.0	3.9	27	26	7.5	4.6
3	1.9	2.4	2.0	2.0	1.9	1.9	2.0	6.8	25	25	7.3	4.5
4	1.9	2.4	2.0	2.0	1.9	1.9	2.0	7.3	27	24	7.5	4.5
5	1.9	2.6	2.0	2.0	1.9	1.9	2.0	6.9	32	22	7.3	6.2
6	1.9	2.4	2.0	2.0	1.9	1.9	2.0	5.7	32	22	7.1	5.6
7	1.9	2.2	2.0	2.0	1.9	1.9	2.0	5.9	33	20	6.8	4.7
8	1.9	2.1	2.0	2.0	1.8	1.9	2.0	5.9	36	20	6.5	4.6
9	1.9	2.1	2.0	1.9	1.8	1.9	2.0	6.2	36	20	6.3	4.7
10	1.9	2.1	2.0	1.9	1.8	1.9	2.0	7.0	36	18	6.4	4.6
11	1.9	2.1	2.0	1.9	1.8	1.9	2.0	6.8	36	18	7.1	6.2
12	1.9	2.1	2.0	1.9	1.8	1.9	2.1	6.7	35	16	8.4	6.9
13	1.9	2.1	2.0	1.9	1.8	1.9	2.2	6.0	36	16	10	5.6
14	1.9	2.1	2.0	1.9	1.8	2.0	2.4	5.5	35	15	8.6	5.4
15	2.0	2.1	2.0	1.9	1.8	2.0	2.6	5.0	33	14	7.0	5.0
16	2.1	2.1	2.0	1.9	1.8	2.0	2.7	5.0	34	13	6.8	4.5
17	2.0	2.1	2.0	1.9	1.8	2.0	2.9	4.9	36	13	8.3	4.2
18	2.0	2.0	2.0	1.9	1.8	2.0	2.9	5.5	38	12	9.5	4.0
19	2.1	2.0	2.0	1.9	1.8	2.0	2.9	5.9	33	11	12	4.0
20	2.0	2.0	2.0	1.9	1.8	2.0	2.9	5.9	31	11	8.6	4.1
21	2.0	2.0	2.0	1.9	1.8	2.0	2.8	6.5	30	11	7.5	3.8
22	2.0	2.0	2.0	1.9	1.8	2.0	2.8	8.1	30	10	6.9	3.6
23	2.1	2.0	2.0	1.9	1.8	2.0	2.8	9.2	28	10	6.5	3.6
24	2.0	2.0	2.0	1.9	1.8	2.0	2.8	10	29	9.8	6.2	3.5
25	2.0	2.0	2.0	1.9	1.9	2.0	2.8	11	28	9.5	6.1	3.4
26	2.8	2.0	2.0	1.9	1.9	2.0	2.8	11	29	9.5	6.0	3.2
27	2.3	2.0	2.0	1.9	1.9	2.0	2.8	13	29	9.5	6.0	3.2
28	2.2	2.0	2.0	1.9	1.9	2.0	2.8	17	29	10	5.8	3.0
29	2.1	2.0	2.0	1.9	---	2.0	2.9	20	30	11	5.7	3.0
30	2.1	2.0	2.0	1.9	---	2.0	2.9	22	29	10	5.4	3.0
31	2.3	---	2.0	1.9	---	2.0	---	24	---	8.5	5.2	---
TOTAL	62.5	63.3	62.0	59.7	51.5	60.7	73.8	267.5	950	472.8	224.1	132.2
MEAN	2.02	2.11	2.00	1.93	1.84	1.96	2.46	8.63	31.7	15.3	7.23	4.41
MAX	2.8	2.6	2.0	2.0	1.9	2.0	2.9	24	38	28	12	6.9
MIN	1.8	2.0	2.0	1.9	1.8	1.9	2.0	2.9	25	8.5	5.2	3.0
AC-FT	124	126	123	118	102	120	146	531	1880	938	445	262

CAL YR 1981 TOTAL 1114.6 MEAN 3.05 MAX 12 MIN 1.8 AC-FT 2210
WTR YR 1982 TOTAL 2480.1 MEAN 6.79 MAX 38 MIN 1.8 AC-FT 4920

NOTE.--NO GAGE-HEIGHT RECORD NOV. 24 TO APR. 13.

09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO

LOCATION.--Lat 39°34'35", long 106°06'30", in SE¼NW¼ sec.34, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 220 ft (67 m) upstream from bridge on U.S. Highway 6, 160 ft (49 m) downstream from North Tenmile Creek, and 0.6 mi (1.0 km) west of Frisco.

DRAINAGE AREA.--93.3 mi^2 (241.6 km^2).

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as "below North Fork, at Frisco."

GAGE.--Water-stage recorder. Altitude of gage is 9,100 ft (2,774 m), from topographic map. Prior to Apr. 21, 1981 at site 720 ft downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by a few small diversions above station for irrigation and municipal use and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm^3) in Eagle River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 92.9 ft^3/s (2.631 m^3/s), 67,310 acre-ft/yr (83.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,910 ft^3/s (54.1 m^3/s) June 16, 1965, gage height, 6.15 ft (1.875 m), from rating curve extended above 750 ft^3/s (21 m^3/s); minimum daily, 7 ft^3/s (0.20 m^3/s) Mar. 8, 14, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 781 ft^3/s (22.1 m^3/s) at 0015 June 29, gage height, 3.04 ft (0.927 m), only peak above base of 700 ft^3/s (20 m^3/s); minimum daily, 11 ft^3/s (0.31 m^3/s) Jan. 9, 10.

CORRECTIONS.--The date of occurrence of the maximum discharge for water year 1981 was published in error in the report for 1981, the correct date is June 8, 1981.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	24	21	13	16	22	22	74	499	565	170	64
2	40	24	21	13	16	20	22	101	510	570	158	60
3	41	22	21	13	16	20	22	123	490	532	151	57
4	44	23	21	13	16	20	22	151	437	495	144	50
5	45	23	21	13	16	19	23	188	565	433	136	59
6	43	23	21	13	16	18	24	149	499	402	127	65
7	41	22	22	13	16	17	23	127	451	355	121	57
8	39	24	23	12	16	17	22	123	510	336	115	57
9	38	21	23	11	16	18	20	127	521	340	112	58
10	37	20	23	11	16	18	18	151	516	324	106	54
11	36	20	23	12	16	18	18	165	499	340	104	63
12	35	20	23	12	17	19	20	172	499	328	121	85
13	35	20	22	12	17	21	20	165	532	320	149	78
14	33	20	21	12	17	22	22	144	481	312	134	76
15	34	20	20	12	17	21	24	136	455	297	119	70
16	38	19	20	12	17	21	25	134	481	301	112	66
17	34	17	19	12	18	22	32	131	543	282	102	58
18	34	17	18	12	19	21	35	129	576	264	101	57
19	31	17	17	12	19	21	35	134	526	241	117	57
20	31	17	17	12	20	21	36	134	499	228	125	56
21	30	17	16	12	20	21	37	140	473	210	102	54
22	29	17	15	12	20	22	38	180	464	199	99	52
23	28	17	15	12	21	23	38	216	473	190	98	47
24	27	17	14	12	19	23	38	251	486	185	90	48
25	27	18	13	13	20	23	38	258	576	180	93	48
26	26	19	13	13	22	23	38	244	570	180	96	48
27	28	20	13	14	21	23	41	301	576	185	91	48
28	28	21	13	14	21	22	44	351	626	241	82	46
29	27	21	13	15	---	22	49	468	636	241	78	46
30	25	21	13	16	---	22	54	459	576	232	74	47
31	24	---	13	16	---	22	---	446	---	193	70	---
TOTAL	1049	601	568	394	501	642	900	6072	15545	9501	3497	1731
MEAN	33.8	20.0	18.3	12.7	17.9	20.7	30.0	196	518	306	113	57.7
MAX	45	24	23	16	22	23	54	468	636	570	170	85
MIN	24	17	13	11	16	17	18	74	437	180	70	46
AC-FT	2080	1190	1130	781	994	1270	1790	12040	30830	18850	6940	3430

CAL YR 1981 TOTAL 23342 MEAN 64.0 MAX 636 MIN 10 AC-FT 46300
WTR YR 1982 TOTAL 41001 MEAN 112 MAX 636 MIN 11 AC-FT 81330

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO FEB. 22.

09050700 BLUE RIVER BELOW DILLON, CO

LOCATION.--Lat 39°37'32", long 106°03'57", in SE¼SE¼ sec.12, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 0.3 mi (0.5 km) downstream from Dillon Dam, 0.1 mi (0.2 km) upstream from Straight Creek, and 1.1 mi (1.8 km) west of Dillon.

DRAINAGE AREA.--335 mi² (868 km²).

PERIOD OF RECORD.--January 1960 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,760 ft (2,670 m), from topographic map.

REMARKS.--Records good. Flow regulated since Sept. 3, 1963, by Dillon Reservoir, 0.3 mi (0.5 km) upstream (station 09050600). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions above station for irrigation of about 400 acres (1.62 km²) of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years (water years 1964-82), 179 ft³/s (5.069 m³/s), 129,700 acre-ft/yr (160 hm³/yr), since completion of Dillon Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) May 23, 1970, gage height, 3.63 ft (1.106 m); maximum gage height, 3.68 ft (1.122 m) June 26, 1971; no flow Sept. 4 to Nov. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 445 ft³/s (12.6 m³/s) at 0100 Aug. 20, gage height, 1.90 ft (0.579 m); minimum daily, 12 ft³/s (0.34 m³/s) Jan. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	51	50	58	53	60	79	53	53	420	193	251
2	53	51	50	58	53	60	81	53	53	425	165	239
3	53	51	50	58	53	60	81	51	53	425	140	231
4	53	51	50	58	55	58	81	51	53	425	119	219
5	53	51	50	58	58	58	81	51	53	425	106	219
6	51	51	50	58	58	58	81	51	53	425	133	231
7	51	51	51	58	58	60	81	51	53	245	179	227
8	51	51	51	58	58	60	81	50	53	53	219	219
9	51	51	51	58	58	63	81	50	53	53	251	219
10	51	51	51	58	58	63	81	50	53	55	235	211
11	51	51	51	34	58	63	79	50	53	55	247	215
12	51	51	51	12	58	63	37	50	53	58	287	239
13	51	51	51	12	58	63	16	50	53	87	326	247
14	51	51	51	12	58	63	15	51	51	150	358	251
15	51	53	51	12	58	63	41	51	51	215	390	247
16	51	53	51	12	60	70	116	51	51	251	400	235
17	51	53	51	13	63	74	112	53	53	271	395	227
18	51	53	51	33	65	74	112	53	53	275	415	215
19	51	53	51	79	67	76	40	53	53	271	430	211
20	51	51	51	106	67	76	15	53	53	239	445	211
21	51	51	50	129	67	76	16	53	53	193	435	208
22	51	51	67	133	67	76	16	53	53	157	420	201
23	51	51	81	133	67	70	16	53	53	126	400	201
24	51	50	70	133	63	65	16	51	53	103	372	197
25	51	50	63	109	63	65	16	51	53	87	349	193
26	51	50	63	81	63	65	90	51	53	76	340	193
27	50	50	63	70	60	65	157	53	53	101	318	190
28	46	50	60	63	60	65	117	53	53	136	304	179
29	50	50	58	56	---	67	53	53	53	161	291	175
30	51	50	58	56	---	70	53	53	190	197	275	172
31	51	---	58	55	---	79	---	53	---	204	263	---
TOTAL	1584	1533	1705	1923	1684	2048	1941	1603	1721	6364	9200	6473
MEAN	51.1	51.1	55.0	62.0	60.1	66.1	64.7	51.7	57.4	205	297	216
MAX	53	53	81	133	67	79	157	53	190	425	445	251
MIN	46	50	50	12	53	58	15	50	51	53	106	172
AC-FT	3140	3040	3380	3810	3340	4060	3850	3180	3410	12620	18250	12840

CAL YR 1981 TOTAL 21069 MEAN 57.7 MAX 193 MIN 16 AC-FT 41790
WTR YR 1982 TOTAL 37779 MEAN 104 MAX 445 MIN 12 AC-FT 74930

09052000 ROCK CREEK NEAR DILLON, CO

LOCATION.--Lat 39°43'23", long 106°07'41", in NE¼ sec.9, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 500 ft (150 m) upstream from bridge on State Highway 9, 1,100 ft (340 m) upstream from mouth, 1,200 ft (370 m) downstream from confluence of North and South Rock Creeks, and 8 mi (13 km) northwest of Dillon.

DRAINAGE AREA.--15.8 mi^2 (40.9 km^2).

PERIOD OF RECORD.--July 1942 to September 1956, October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,502.52 ft (2,591.568 m) (Colorado Highway Department datum). Prior to Apr. 21, 1943, nonrecording gage, and Apr. 21, 1943, to Sept. 13, 1950, water-stage recorder, at site 500 ft (150 m) downstream at datum 28.76 ft (8.766 m) lower.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. A few small diversions for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, (water years 1943-56, 1967-82), 22.8 ft^3/s (0.646 m^3/s), 16,520 acre-ft/yr (20.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 289 ft^3/s (8.18 m^3/s) June 10, 1973, gage height, 4.35 ft (1.326 m), from rating curve extended above 154 ft^3/s (4.4 m^3/s); maximum gage height, 4.36 ft (1.329 m) June 24, 1971; minimum daily discharge, 2.2 ft^3/s (0.062 m^3/s) Apr. 13, 17, 1945.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 175 ft^3/s (4.96 m^3/s) at 2300 June 28, gage height, 4.05 ft (1.234 m), only peak above base of 160 ft^3/s (4.5 m^3/s); minimum daily, 4.3 ft^3/s (0.12 m^3/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	7.0	5.6	5.0	4.5	4.5	5.0	20	90	129	50	19
2	8.4	7.4	5.2	5.0	4.5	4.5	5.0	26	91	120	51	18
3	9.0	7.4	5.0	5.0	4.5	4.5	5.0	32	80	112	50	17
4	9.6	7.4	5.0	5.0	4.5	4.5	5.0	47	69	109	45	16
5	10	7.4	5.0	5.0	4.5	4.5	5.0	48	86	90	41	19
6	9.6	7.4	5.0	5.0	4.3	4.5	5.0	36	89	84	40	21
7	9.2	6.8	5.0	5.0	4.5	4.5	5.0	26	87	75	40	18
8	9.2	6.7	5.0	5.0	4.5	4.5	5.0	24	96	77	38	17
9	9.5	7.0	5.0	5.0	4.5	4.5	5.0	26	93	84	39	17
10	8.7	7.0	5.0	5.0	4.5	4.5	5.0	32	100	72	39	16
11	8.4	7.0	5.0	5.0	4.5	4.5	5.5	30	100	71	34	16
12	9.8	7.0	5.0	5.0	4.5	4.5	6.5	26	113	73	37	25
13	9.6	7.0	5.0	5.0	4.5	4.5	7.5	23	111	77	38	21
14	9.4	7.0	5.0	5.0	4.5	4.5	8.5	19	99	81	42	19
15	9.6	6.4	5.0	4.5	4.5	4.5	10	17	88	83	36	17
16	10	6.3	5.0	4.5	4.5	4.5	8.4	16	85	71	32	16
17	8.9	6.8	5.0	4.5	4.5	4.5	7.9	16	122	72	29	15
18	8.6	6.2	5.0	4.5	4.5	4.5	7.7	19	129	73	30	15
19	8.3	6.4	5.0	4.5	4.5	4.5	7.6	22	95	74	33	15
20	8.0	6.0	5.0	4.5	4.5	4.5	7.5	22	85	68	32	14
21	7.5	6.0	5.0	4.5	4.5	4.5	7.5	24	101	64	28	13
22	7.4	6.0	5.0	4.5	4.5	4.5	7.5	35	113	63	28	14
23	7.6	5.8	5.0	4.5	4.5	4.5	7.6	50	117	63	27	15
24	7.3	5.9	5.0	4.5	4.5	4.5	8.2	57	123	64	24	14
25	7.1	5.7	5.0	4.5	4.5	4.5	8.6	51	134	66	23	14
26	10	6.0	5.0	4.5	4.5	4.5	10	47	122	62	24	16
27	8.2	6.0	5.0	4.5	4.5	4.5	9.9	63	118	62	21	15
28	7.5	6.0	5.0	4.5	4.5	4.5	11	84	144	70	21	14
29	7.3	6.0	5.0	4.5	---	4.5	13	97	142	72	24	14
30	7.1	6.0	5.0	4.5	---	4.7	15	90	134	61	22	13
31	7.2	---	5.0	4.5	---	5.0	---	85	---	52	20	---
TOTAL	266.5	197.0	155.8	146.5	125.8	140.7	225.4	1210	3156	2394	1038	493
MEAN	8.60	6.57	5.03	4.73	4.49	4.54	7.51	39.0	105	77.2	33.5	16.4
MAX	10	7.4	5.6	5.0	4.5	5.0	15	97	144	129	51	25
MIN	7.1	5.7	5.0	4.5	4.3	4.5	5.0	16	69	52	20	13
AC-FT	529	391	309	291	250	279	447	2400	6260	4750	2060	978

CAL YR 1981 TOTAL 6005.8 MEAN 16.5 MAX 125 MIN 3.5 AC-FT 11910
WTR YR 1982 TOTAL 9548.7 MEAN 26.2 MAX 144 MIN 4.3 AC-FT 18940

NOTE.--NO GAGE-HEIGHT RECORD DEC. 21 TO APR. 15.

09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°43'41", long 106°10'22", in SW¼SW¼ sec.6, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank 1.2 mi (1.9 km) downstream from Boulder Lake, 3.2 mi (5.1 km) upstream from mouth, and 9.4 mi (15.1 km) northwest of Dillon.

DRAINAGE AREA.--8.56 mi² (22.2 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,460 ft (2,883 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 16.3 ft³/s (0.462 m³/s), 11,810 acre-ft/yr (14.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft³/s (7.19 m³/s) July 4, 1975, gage height, 3.27 ft (0.997 m); minimum daily, 0.80 ft³/s (0.023 m³/s) Jan. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 156 ft³/s (4.42 m³/s) at 2300 June 28, gage height, 2.85 ft (0.869 m); only peak above base of 120 ft³/s (3.4 m³/s); minimum daily, 1.5 ft³/s (0.042 m³/s) Mar. 5-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	4.0	3.0	2.6	2.0	2.0	1.8	10	62	122	50	15
2	5.7	4.0	3.0	2.6	2.0	1.9	1.8	15	62	114	54	14
3	5.9	4.0	3.0	2.5	2.0	1.7	1.8	21	56	107	49	13
4	6.5	4.0	3.0	2.5	2.0	1.6	1.8	32	50	101	43	12
5	7.3	4.0	3.0	2.4	2.0	1.5	1.8	32	56	87	38	13
6	7.3	4.0	3.0	2.4	2.0	1.5	1.8	25	58	80	38	15
7	7.1	4.0	3.0	2.4	2.0	1.5	1.8	21	59	72	37	13
8	7.1	4.0	3.0	2.3	2.0	1.5	1.8	18	62	76	36	12
9	7.1	4.0	3.0	2.3	2.0	1.5	1.8	20	63	78	39	12
10	7.1	3.9	3.0	2.3	2.0	1.5	1.8	23	69	71	37	12
11	6.5	3.8	3.0	2.3	2.0	1.6	1.8	20	71	72	33	13
12	7.1	3.8	3.0	2.2	2.0	1.8	2.3	18	78	78	36	20
13	7.1	3.7	3.0	2.2	2.0	1.8	3.0	16	77	82	36	18
14	7.1	3.7	3.0	2.2	2.0	1.8	3.7	14	72	86	41	15
15	7.1	3.6	3.0	2.1	2.0	1.8	5.0	13	66	84	36	13
16	6.8	3.6	3.0	2.1	2.0	1.8	4.7	12	66	74	31	12
17	6.4	3.5	3.0	2.0	2.0	1.8	4.5	12	93	74	30	12
18	6.0	3.5	3.0	2.0	2.0	1.8	4.2	14	98	72	29	12
19	5.7	3.4	3.0	2.0	2.0	1.8	4.0	17	73	73	30	11
20	5.3	3.3	3.0	2.0	2.0	1.8	3.9	17	69	67	29	11
21	5.0	3.3	3.0	2.0	2.0	1.8	3.9	18	84	64	26	10
22	4.7	3.2	3.0	2.0	2.0	1.8	3.9	22	99	64	25	9.7
23	4.5	3.2	3.0	2.0	2.0	1.8	4.0	30	99	67	22	10
24	4.2	3.2	3.0	2.0	2.0	1.8	4.2	38	99	69	22	10
25	4.0	3.1	3.0	2.0	2.0	1.8	4.5	35	107	69	21	9.7
26	4.0	3.0	2.9	2.0	2.0	1.8	5.0	33	99	67	22	11
27	4.0	3.0	2.9	2.0	2.0	1.8	4.4	40	99	66	18	12
28	4.0	3.0	2.8	2.0	2.0	1.8	4.7	50	126	71	18	11
29	4.0	3.0	2.8	2.0	---	1.8	5.2	65	126	71	17	11
30	4.0	3.0	2.7	2.0	---	1.8	6.8	61	124	55	16	10
31	4.0	---	2.7	2.0	---	1.8	---	58	---	53	15	---
TOTAL	178.5	106.8	91.8	67.4	56.0	53.8	101.7	820	2422	2386	974	372.4
MEAN	5.76	3.56	2.96	2.17	2.00	1.74	3.39	26.5	80.7	77.0	31.4	12.4
MAX	7.3	4.0	3.0	2.6	2.0	2.0	6.8	65	126	122	54	20
MIN	4.0	3.0	2.7	2.0	2.0	1.5	1.8	10	50	53	15	9.7
AC-FT	354	212	182	134	111	107	202	1630	4800	4730	1930	739

CAL YR 1981 TOTAL 4472.1 MEAN 12.3 MAX 117 MIN 1.5 AC-FT 8870
WTR YR 1982 TOTAL 7630.4 MEAN 20.9 MAX 126 MIN 1.5 AC-FT 15130

NOTE.--NO GAGE-HEIGHT RECORD OCT. 16 TO JUNE 8.

09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°45'47", long 106°11'31", in SW¼NW¼ sec.25, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on left bank 0.2 mi (0.3 km) upstream from unnamed tributary, 2.7 mi (4.3 km) upstream from mouth, and 12 mi (19.3 km) northwest of Dillon.

DRAINAGE AREA.--14.2 mi² (36.8 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,040 ft (2,755 m), from topographic map.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 25.1 ft³/s (0.711 m³/s) 18,180 acre-ft/yr (22.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 266 ft³/s (7.53 m³/s) June 19, 1974, gage height, 5.56 ft (1.695 m), from rating curve extended above 170 ft³/s (4.8 m³/s); maximum gage height, 6.56 ft (1.999 m) May 2, 1975 (backwater from beaver dam and ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Mar. 14, 1974, Jan. 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft³/s (6.20 m³/s) at 0100 June 29, gage height, 4.86 ft (1.481 m); only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 3.0 ft³/s (0.085 m³/s) Jan. 19 to Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	6.5	4.3	4.0	3.0	3.0	4.5	17	68	181	90	24
2	11	7.1	4.3	4.0	3.0	3.0	4.5	23	64	175	85	22
3	12	7.1	4.3	4.0	3.0	3.0	4.5	31	67	160	80	19
4	14	7.1	4.3	4.0	3.0	3.0	4.5	36	60	156	75	18
5	15	7.0	4.3	4.0	3.0	3.5	4.5	32	69	132	70	21
6	15	6.7	4.3	4.0	3.0	3.5	4.5	25	81	119	70	26
7	15	6.7	4.1	4.0	3.0	3.5	4.5	18	78	107	70	21
8	15	6.6	4.3	4.0	3.0	3.5	4.5	16	88	107	70	19
9	15	6.2	4.2	4.0	3.0	3.5	4.5	19	97	115	70	25
10	13	5.8	3.9	4.0	3.0	3.5	4.5	24	107	106	70	21
11	13	5.9	3.9	4.0	3.0	3.5	4.5	23	110	109	57	21
12	14	5.6	3.9	4.0	3.0	3.7	5.5	22	123	116	63	32
13	13	5.5	4.0	3.5	3.0	4.0	6.2	21	123	122	70	29
14	12	5.4	4.0	3.5	3.0	4.0	7.0	17	110	128	80	27
15	12	5.1	4.1	3.5	3.0	4.0	8.0	15	94	128	70	24
16	12	5.1	4.4	3.5	3.0	4.0	8.2	15	92	105	62	24
17	12	5.0	4.4	3.5	3.0	4.0	7.2	15	132	112	56	22
18	11	5.0	4.4	3.5	3.0	4.0	7.2	18	154	108	58	21
19	10	5.1	4.3	3.0	3.0	4.3	7.2	22	115	108	60	19
20	10	5.1	4.3	3.0	3.0	4.5	6.7	24	100	103	60	19
21	9.6	5.1	4.3	3.0	3.0	4.5	6.9	24	133	95	54	17
22	8.9	5.1	4.6	3.0	3.0	4.5	6.9	29	152	95	48	16
23	8.6	5.1	4.4	3.0	3.0	4.5	7.5	39	163	103	45	16
24	8.8	5.1	4.0	3.0	3.0	4.5	8.0	46	153	107	42	18
25	8.6	5.0	4.0	3.0	3.0	4.5	9.0	46	160	113	38	16
26	8.5	4.8	4.0	3.0	3.0	4.5	9.2	41	154	105	35	19
27	8.3	4.8	4.0	3.0	3.0	4.5	8.4	50	142	115	33	23
28	7.6	4.6	4.0	3.0	3.0	4.5	11	57	180	108	31	21
29	8.3	4.5	4.0	3.0	---	4.5	12	69	185	130	29	20
30	8.4	4.5	4.0	3.0	---	4.5	13	70	176	110	27	18
31	8.0	---	4.0	3.0	---	4.5	---	67	---	100	25	---
TOTAL	348.6	168.2	129.3	108.0	84.0	122.5	204.6	971	3530	3678	1793	638
MEAN	11.2	5.61	4.17	3.48	3.00	3.95	6.82	31.3	118	119	57.8	21.3
MAX	15	7.1	4.6	4.0	3.0	4.5	13	70	185	181	90	32
MIN	7.6	4.5	3.9	3.0	3.0	3.0	4.5	15	60	95	25	16
AC-FT	691	334	256	214	167	243	406	1930	7000	7300	3560	1270

CAL YR 1981 TOTAL 7793.6 MEAN 21.4 MAX 172 MIN 2.0 AC-FT 15460
WTR YR 1982 TOTAL 11775.2 MEAN 32.3 MAX 185 MIN 3.0 AC-FT 23360

NOTE.--NO GAGE-HEIGHT RECORD DEC. 24 TO APR. 15, JULY 29 TO SEPT. 2.

09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO

LOCATION.--Lat 39°47'59", long 106°16'04", in SW¼SW¼ sec.3, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on right bank 600 ft (180 m) upstream from bridge, 0.3 mi (0.5 km) downstream from Black Lake, 4.5 mi (7.2 km) upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft (2,423.2 m), and 17 mi (27 km) northwest of Dillon.

DRAINAGE AREA.--15.0 mi^2 (38.8 km^2).

PERIOD OF RECORD.--July 1942 to September 1949, October 1966 to current year.

REVISED RECORDS.--WSP 2124: Drainage area, WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Altitude of gage is 8,750 ft (2,667 m), from topographic map. July 17, 1942, to May 27, 1943, nonrecording gage, and May 28, 1943, to Sept. 30, 1949, water-stage recorder at site 600 ft (180 m) downstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 31.5 ft^3/s (0.892 m^3/s), 22,820 acre-ft/yr (28.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 384 ft^3/s (10.9 m^3/s) July 1, 1943, gage height, 4.72 ft (1.439 m), site and datum then in use, from rating curve extended above 260 ft^3/s (7.4 m^3/s); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Feb. 22, 1976, Jan. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 246 ft^3/s (6.97 m^3/s) at 0100 June 29 gage height, 3.87 ft (1.180 m); only peak above base of 160 ft^3/s (4.5 m^3/s), minimum daily 2.8 ft^3/s (0.079 m^3/s) Jan. 18, 19, 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	8.6	4.6	3.5	3.0	3.0	4.0	18	84	207	90	25
2	8.0	8.4	4.5	3.5	3.0	3.0	4.4	29	81	201	87	23
3	10	8.3	4.2	3.5	3.0	3.0	5.4	41	83	178	81	21
4	14	8.1	4.2	3.5	3.0	3.0	4.0	45	68	173	77	20
5	21	7.8	4.1	3.5	3.0	3.2	4.0	45	90	149	67	24
6	20	7.6	4.0	3.5	3.0	3.9	4.0	30	101	131	65	30
7	20	7.5	4.0	3.5	3.0	3.4	4.7	23	90	115	64	24
8	19	7.4	3.8	3.5	3.0	3.3	4.7	20	110	118	66	21
9	18	7.0	3.8	3.5	3.0	3.3	4.5	21	105	124	69	24
10	16	6.2	3.7	3.5	3.0	3.2	4.4	29	120	111	66	23
11	15	6.0	3.6	3.5	3.0	3.2	4.3	28	117	113	55	23
12	16	5.8	3.6	3.5	3.0	3.6	6.2	27	131	127	67	38
13	16	5.8	3.6	3.5	3.0	3.6	6.7	27	137	140	64	34
14	17	6.4	3.6	3.3	3.0	3.6	6.9	22	126	151	94	31
15	17	5.5	3.7	3.2	3.0	3.6	7.9	17	116	150	73	26
16	17	4.7	3.6	3.2	3.0	3.6	9.1	16	108	130	61	25
17	15	5.1	3.5	3.1	3.0	3.6	8.6	15	161	130	54	24
18	13	5.4	3.5	2.8	3.0	3.8	8.2	17	178	133	57	22
19	13	5.2	3.5	2.8	3.0	3.9	8.2	22	129	131	57	20
20	12	5.1	3.5	3.0	3.0	4.0	8.2	26	124	129	62	18
21	11	5.8	3.5	3.0	3.0	5.4	7.8	24	161	122	52	16
22	10	5.0	3.5	3.2	3.0	6.1	7.4	34	180	129	50	15
23	9.6	5.4	3.5	3.2	3.0	4.8	7.7	55	198	145	44	15
24	9.8	4.6	3.5	2.9	3.0	4.0	8.3	63	171	138	42	16
25	9.1	4.3	3.5	2.8	3.0	4.0	8.9	53	181	140	40	15
26	9.1	4.3	3.5	2.9	3.0	4.0	10	46	180	145	38	19
27	9.2	4.3	3.5	3.1	3.0	4.0	11	66	150	125	33	23
28	8.8	4.4	3.5	3.2	3.0	4.0	9.5	90	202	129	32	23
29	8.9	4.5	3.5	3.1	---	4.0	11	98	213	153	31	21
30	9.6	4.8	3.5	3.0	---	4.4	12	89	202	113	31	20
31	9.2	---	3.5	3.0	---	4.7	---	77	---	96	27	---
TOTAL	409.7	179.3	115.1	100.3	84.0	118.2	212.0	1213	4097	4276	1796	679
MEAN	13.2	5.98	3.71	3.24	3.00	3.81	7.07	39.1	137	138	57.9	22.6
MAX	21	8.6	4.6	3.5	3.0	6.1	12	98	213	207	94	38
MIN	8.0	4.3	3.5	2.8	3.0	3.0	4.0	15	68	96	27	15
AC-FT	813	356	228	199	167	234	421	2410	8130	8480	3560	1350

CAL YR 1981 TOTAL 10022.8 MEAN 27.5 MAX 219 MIN 1.5 AC-FT 19880
WTR YR 1982 TOTAL 13279.6 MEAN 36.4 MAX 213 MIN 2.8 AC-FT 26340

NOTE.--NO GAGE-HEIGHT RECORD FEB. 1 TO MAR. 4.

RESERVOIRS IN BLUE RIVER BASIN

09050600 DILLON RESERVOIR.--Lat 39°37'14", long 106°03'53", in NE¼ sec.13, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, in gatehouse at dam, 0.8 mi (1.3 km) upstream from Straight Creek, about 1.3 mi (2.1 km) southwest of Dillon, and 3.5 mi (5.6 km) northeast of Frisco. DRAINAGE AREA, 335 mi² (868 km²). PERIOD OF RECORD, September 1963 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations NGVD.

Reservoir is earth and rockfill dam. Dam completed and storage began Sept. 3, 1963; dead storage pool filled Sept. 12, 1963. Capacity, 254,000 acre-ft (313 hm³) between elevations 8,829.00 ft (2,691.079 m), invert of outlet valve, and 9,017.00 ft (2,748.382 m), crest of spillway. Dead storage, 3,270 acre-ft (4.03 hm³). Figures given represent usable contents. Reservoir stores water for transmountain diversion to South Platte River basin through Harold D. Roberts tunnel for municipal use by city of Denver. Records furnished by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 261,300 acre-ft (322 hm³) June 25, 1971, elevation, 9,019.20 ft (2,749.052 m); minimum since appreciable storage was attained in July 1964, 45,310 acre-ft (55.9 hm³) Apr. 20, 1965, elevation, 8,904.16 ft (2,713.988 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 257,000 acre-ft (317 hm³) Aug. 19, 20, elevation, 9,017.91 ft (2,748.659 m); minimum, 144,500 acre-ft (178 hm³) April 10, elevation, 9,974.18 ft (2,735.330 m).

09057000 GREEN MOUNTAIN RESERVOIR.--Lat 39°52'42", long 106°19'45", in NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, in hoist house at right end of dam, 0.6 mi (1 km) upstream from Elliott Creek, and 13 mi (21 km) southeast of Kremmling. DRAINAGE AREA, 598 mi² (1,549 km²), includes 15.3 mi² (39.6 km²) of Elliott Creek above diversion for Elliott Creek feeder canal. PERIOD OF RECORD, November 1942 to current year. REVISED RECORDS, WSP 2124: Drainage area. GAGE, Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

Reservoir is formed by an earth and rockfill dam. Dam completed and storage began November 1942. Capacity, 146,900 acre-ft (181 hm³) between elevations 7,800 ft (2,377.4 m), sill of outlet gate, and 7,950 ft (2,423.2 m), top of radial spillway gates. Dead storage, 7,760 acre-ft (9.57 hm³). Figures given represent usable contents. Reservoir is used for power development and storage for replacement of water diverted to South Platte River basin. Water released to fill decrees during late irrigation season when flow of Colorado River is deficient. Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF NO RECORD: Maximum contents, 148,900 acre-ft (184 hm³) July 10, 1947, elevation, 7,950.95 ft (2,423.450); minimum since appreciable storage was attained, 388 acre-ft (478,000 hm³) Jan. 12, 1963, elevation, 7,801.70 ft (2,377.958 m).

EXTREMES FOR CURRENT YEAR: Maximum contents, 145,400 acre-ft (179 hm³) Aug. 14, 15, elevation, 7,949.32 ft (2,422.953 m); minimum, 55,200 acre-ft (68.1 hm³) April 26, elevation, 7,892.40 ft (2,405.604 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	09050600	DILLON RESERVOIR		09057000	GREEN MOUNTAIN RESERVOIR	
Sept. 30........	8,992.08	183,700	-	7,918.90	89,920	-
Oct. 31..........	8,987.71	173,300	-10,400	7,915.42	84,710	-5,210
Nov. 30..........	8,984.42	165,800	-7,500	7,912.92	81,090	-3,620
Dec. 31..........	8,981.73	159,900	-5,900	7,910.40	77,550	-3,540
CAL YR 1981..			-42,500			-5,700
Jan. 31..........	8,978.74	153,700	-6,200	7,906.20	71,880	-5,670
Feb. 28..........	8,975.93	147,800	-5,900	7,901.37	65,710	-6,170
Mar. 31..........	8,974.23	144,600	-3,200	7,897.07	60,520	-5,190
Apr. 30..........	8,975.51	147,100	+2,500	7,893.10	55,990	-4,530
May 31..........	8,986.87	171,300	+24,200	7,910.35	77,480	+21,490
June 30..........	9,012.72	240,500	+69,200	7,931.05	110,000	+32,520
July 31..........	9,017.39	255,300	+14,800	7,947.32	141,300	+31,300
Aug. 31..........	9,017.62	256,100	+800	7,947.80	142,300	+1,000
Sept. 30........	9,017.46	255,500	-600	7,947.46	141,600	-700
WTR YR 1982..			+71,800			+51,680

09055300 CATARACT CREEK NEAR KREMMLING, CO

LOCATION.--Lat 39°50'07", long 106°18'57", in SW¼NE¼ sec.35, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on right bank 70 ft (21 m) downstream from lower Cataract Lake, 2.8 mi (4.5 km) upstream from high-water line of Green Mountain Reservoir at elevation 7,950 ft (2,423.2 m), and 17 mi (27 km) south of Kremmling.

DRAINAGE AREA.--12.0 mi² (31.1 km²).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,605 ft (2,623 m), from topographic map.

REMARKS.--Records good. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 19.5 ft³/s (0.552 m³/s), 14,130 acre-ft/yr (17.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 321 ft³/s (9.09 m³/s) June 21, 1967, gage height, 5.43 ft (1.655 m), from rating curve extended above 180 ft³/s (5.1 m³/s); minimum daily, 0.28 ft³/s (0.008 m³/s) Oct. 7, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 228 ft³/s (6.46 m³/s) at 0215 June 29, gage height, 4.83 ft (1.472 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 1.3 ft³/s (0.037 m³/s) Mar. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.7	3.6	2.3	1.9	1.5	1.5	14	72	162	44	8.2
2	2.3	4.1	3.6	2.3	1.9	1.5	1.6	25	75	158	40	7.4
3	1.7	4.2	3.4	2.3	1.9	1.5	1.6	34	73	143	38	6.9
4	1.6	4.2	3.1	2.3	1.9	1.5	1.5	43	59	139	37	6.6
5	3.3	4.2	2.3	2.3	1.9	1.5	1.5	43	75	123	33	7.3
6	5.4	4.0	1.8	2.0	1.9	1.5	1.5	31	90	105	31	8.6
7	6.4	3.9	1.4	2.0	1.9	1.5	1.8	22	79	95	29	8.4
8	6.6	4.0	1.5	2.0	1.9	1.4	1.9	19	93	95	28	7.5
9	7.4	3.9	1.6	2.0	1.9	1.4	1.9	22	94	97	29	6.8
10	6.9	3.3	1.7	2.0	1.9	1.4	1.8	27	111	92	28	6.2
11	5.7	3.7	1.8	2.0	1.9	1.3	1.7	28	103	93	26	6.3
12	6.1	3.4	1.9	2.0	1.9	1.6	3.0	26	106	89	24	12
13	6.7	3.2	1.7	2.0	1.9	1.6	3.5	25	114	91	24	16
14	6.9	2.3	1.7	2.0	1.9	1.6	4.0	21	105	96	26	16
15	7.2	1.7	1.8	2.0	1.9	1.6	4.7	16	91	96	27	14
16	7.5	2.0	1.9	2.0	1.5	1.6	5.4	12	84	85	24	14
17	6.7	2.3	1.9	2.0	1.5	1.6	5.5	10	121	83	21	14
18	6.2	2.0	2.0	2.0	1.5	1.6	5.3	14	153	77	24	13
19	6.1	2.4	2.0	2.0	1.5	1.6	5.2	21	115	73	24	11
20	5.6	2.8	2.1	2.0	1.5	1.7	5.2	26	106	71	22	10
21	5.2	3.2	2.2	2.0	1.5	1.7	4.9	23	130	62	21	8.8
22	5.2	3.6	2.3	2.0	1.5	1.7	4.6	33	137	61	20	8.2
23	4.8	3.3	2.3	2.0	1.5	1.7	4.7	46	158	62	19	7.7
24	4.2	2.3	2.3	2.0	1.5	1.6	4.9	42	142	64	17	8.1
25	4.1	1.7	2.3	2.0	1.5	1.5	5.5	38	153	64	15	7.8
26	4.5	2.0	2.3	2.0	1.5	1.5	6.1	36	154	83	15	7.6
27	4.0	2.3	2.3	1.9	1.5	1.4	7.1	53	126	64	14	7.8
28	4.0	2.5	2.3	1.9	1.5	1.4	6.9	73	165	60	12	8.3
29	4.3	2.7	2.3	1.9	---	1.4	7.6	74	176	63	11	9.4
30	4.7	3.1	2.3	1.9	---	1.4	9.0	71	155	54	11	9.5
31	4.9	---	2.3	1.9	---	1.4	---	68	---	47	9.6	---
TOTAL	159.4	94.2	68.0	63.0	46.0	47.2	121.4	1036	3415	2747	743.6	283.4
MEAN	5.14	3.14	2.19	2.03	1.71	1.52	4.05	33.4	114	88.6	24.0	9.45
MAX	7.5	4.7	3.6	2.3	1.9	1.7	9.0	74	176	162	44	16
MIN	1.6	1.7	1.4	1.9	1.5	1.3	1.5	10	59	47	9.6	6.2
AC-FT	316	187	135	125	95	94	241	2050	6770	5450	1470	562

CAL YR 1981 TOTAL 5442.11 MEAN 14.9 MAX 166 MIN .75 AC-FT 10790
WTR YR 1982 TOTAL 8826.20 MEAN 24.2 MAX 176 MIN 1.3 AC-FT 17510

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO

LOCATION.--Lat 39°52'49", long 106°20'00", in SW¼NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on left bank 0.3 mi (0.5 km) upstream from Elliott Creek, 0.3 mi (0.5 km) downstream from Green Mountain Dam, and 13 mi (21 km) southeast of Kremmling.

DRAINAGE AREA.--599 mi^2 (1,551 km^2), includes 15.3 mi^2 (39.6 km^2) of Elliott Creek above diversion for Elliott Creek feeder canal.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1943, published as Blue River below Green Mountain Reservoir, near Kremmling.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,682.66 ft (2,341.675 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1951, water-stage recorder at site 3.7 mi (6.0 km) downstream at different datum.

REMARKS.--Records good. Flow regulated by Green Mountain Reservoir since November 1942 (station 09057000). Diversions for irrigation of about 5,000 acres (20.2 km^2) above station. Transmountain diversions above station (see elsewhere in this report). Several observations of specific conductance and water temperatures were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft^3/s (113 m^3/s) June 4, 1938, gage height, 5.93 ft (1.807 m), site and datum then in use, from rating curve extended above 3,000 ft^3/s (85 m^3/s); minimum daily (prior to construction of Green Mountain Reservoir), 80 ft^3/s (2.27 m^3/s) Feb. 18-24, 1938, Feb. 18, 19, 1940; no flow at times in 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft^3/s (28.6 m^3/s) at 0815 July 8, gage height, 5.92 ft (1.804 m); minimum daily, 50 ft^3/s (1.42 m^3/s) June 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	162	167	165	218	226	204	69	62	757	349	445
2	238	162	167	166	213	225	206	69	60	895	345	446
3	248	171	165	167	210	225	211	69	54	904	343	449
4	250	170	165	167	200	225	211	69	51	895	349	447
5	250	168	165	180	211	225	211	69	51	894	349	446
6	245	167	165	206	219	225	232	69	52	892	444	447
7	245	167	164	217	217	225	278	69	53	894	497	447
8	218	169	167	223	227	215	275	69	51	722	496	424
9	202	170	170	227	224	204	270	69	51	607	496	406
10	202	170	169	223	213	206	270	69	50	597	494	376
11	202	171	168	217	210	206	268	69	267	540	494	354
12	202	171	161	215	209	204	262	69	371	498	520	360
13	202	171	168	214	213	204	270	69	376	349	693	355
14	202	171	169	213	213	208	275	69	373	292	793	347
15	202	172	168	214	213	213	280	69	379	295	806	357
16	206	173	168	215	214	208	272	69	385	294	893	537
17	202	172	167	217	215	218	270	69	386	279	851	350
18	202	171	165	216	217	202	270	69	396	247	790	347
19	197	169	167	214	217	206	272	69	403	248	789	349
20	200	169	167	213	224	206	275	69	405	211	795	355
21	200	168	166	215	227	206	275	68	403	195	865	361
22	201	168	167	217	227	206	285	67	402	139	902	364
23	199	167	169	218	224	189	294	67	401	100	882	361
24	201	169	168	217	221	204	310	66	399	100	884	361
25	202	170	167	217	224	204	313	66	543	102	897	361
26	204	172	167	220	226	204	311	63	699	96	829	364
27	203	167	166	222	226	204	286	58	700	98	651	358
28	197	168	166	225	225	204	216	65	685	99	597	358
29	179	171	165	218	---	204	95	66	684	95	601	358
30	165	171	164	225	---	204	69	66	674	98	523	361
31	165	---	164	222	---	204	---	66	---	261	444	---
TOTAL	6476	5077	5161	6505	6097	6509	7536	2098	9866	12693	19661	11651
MEAN	209	169	166	210	218	210	251	67.7	329	409	634	388
MAX	250	173	170	227	227	226	313	69	700	904	902	537
MIN	165	162	161	165	200	189	69	58	50	95	343	347
AC-FT	12850	10070	10240	12900	12090	12910	14950	4160	19570	25180	39000	23110

CAL YR 1981 TOTAL 75191 MEAN 206 MAX 533 MIN 34 AC-FT 149100
WTR YR 1982 TOTAL 99330 MEAN 272 MAX 904 MIN 50 AC-FT 197000

09058000 COLORADO RIVER NEAR KREMMLING, CO

LOCATION.--Lat 40°02'12", long 106°26'22", in NE¼SW¼ sec.23, T.1 N., R.81 W., Grand County, Hydrologic Unit 14010001, on right bank at upstream end of Gore Canyon, 3.0 mi (4.8 km) southwest of Kremmling, and 3.8 mi (6.1 km) downstream from Blue River.

DRAINAGE AREA.--2,382 mi^2 (6,169 km^2).

PERIOD OF RECORD.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1970, October 1971 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,320 ft (2,231 m), from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres (162 km^2) above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft^3/s (609 m^3/s) June 7, 1912, gage height, 21.8 ft (6.64 m), datum then in use, from rating curve extended above 14,000 ft^3/s (400 m^3/s); minimum observed, 166 ft^3/s (1.70 m^3/s) Dec. 19, 1907.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,080 ft^3/s (58.9 m^3/s) at 2000 July 3, gage height, 7.61 ft (2.320 m); minimum daily, 314 ft^3/s (8.89 m^3/s) Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	701	484	314	374	435	405	422	651	1730	1610	1060	906
2	713	480	385	369	435	405	449	781	1640	1910	1020	876
3	729	484	417	374	435	405	426	910	1620	2010	981	864
4	743	480	400	432	430	410	425	1020	1610	2030	944	857
5	753	477	392	481	430	410	435	1160	1510	1960	919	874
6	697	474	385	453	430	410	424	1040	1560	1940	939	906
7	689	475	387	475	430	410	463	902	1560	1820	1020	910
8	658	482	381	475	430	400	458	839	1450	1540	1030	873
9	575	486	384	482	430	400	455	856	1440	1340	1030	848
10	556	479	385	488	430	400	460	882	1450	1370	1030	840
11	572	470	384	488	430	400	462	898	1500	1340	1030	820
12	574	462	385	487	430	400	517	949	1710	1260	1020	932
13	538	463	373	487	430	400	586	1030	1720	1120	1140	902
14	516	468	388	477	430	400	606	971	1690	904	1290	905
15	502	478	386	462	430	400	667	913	1650	971	1290	877
16	537	486	382	459	430	400	706	930	1640	1000	1320	916
17	552	474	373	458	430	400	663	964	1590	908	1330	914
18	560	460	318	452	430	400	648	958	1770	857	1240	802
19	564	457	395	451	430	400	660	982	1930	886	1240	793
20	530	430	387	449	430	400	639	1070	1660	999	1240	792
21	517	421	393	448	430	395	577	1090	1560	907	1270	795
22	534	425	377	441	430	390	587	1120	1490	893	1330	790
23	509	430	318	424	430	390	588	1230	1500	819	1320	783
24	501	434	352	478	430	390	650	1350	1470	843	1290	776
25	509	434	359	453	425	405	693	1430	1460	838	1300	763
26	511	431	357	460	425	410	744	1390	1650	851	1300	769
27	507	404	364	463	410	410	797	1420	1620	898	1130	779
28	509	397	376	450	405	410	763	1490	1550	900	1030	783
29	501	407	388	435	---	415	630	1650	1510	933	1080	798
30	496	410	395	435	---	415	589	1780	1520	1130	1050	794
31	493	---	387	430	---	418	---	1840	---	1060	922	---
TOTAL	17846	13642	11667	13990	12000	12503	17189	34496	47760	37847	35135	25237
MEAN	576	455	376	451	429	403	573	1113	1592	1221	1133	841
MAX	753	486	417	488	435	418	797	1840	1930	2030	1330	932
MIN	493	397	314	369	405	390	422	651	1440	819	919	763
AC-FT	35400	27060	23140	27750	23800	24800	34090	68420	94730	75070	69690	50060

CAL YR 1981 TOTAL 205156 MEAN 562 MAX 1090 MIN 291 AC-FT 406900
WTR YR 1982 TOTAL 279312 MEAN 765 MAX 2030 MIN 314 AC-FT 554000

NOTE.--NO GAGE-HEIGHT RECORD JAN. 28 TO MAR. 31.

COLORADO RIVER MAIN STEM

09058030 COLORADO RIVER NEAR RADIUM, COLORADO

LOCATION.--Lat 39°58'01", long 106°31'22", in NW¼NW¼ sec.24, T.1 S., R.82 W., Grand County, Hydrologic Unit 14010001, on left bank, 1.0 mi (1.6 km) upstream from Blacktail Creek, 2.0 mi (3.2 km) northeast of Radium, and 3.0 mi (4.8 km) downstream from Canyon Creek.

DRAINAGE AREA.--Not determined.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1981 to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 6,910 ft (2,110 m), from topographic map.

REMARKS.--Records good, except those for periods of no gage-height record, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres (162 km^2) above station, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,180 ft^3/s (61.7 m^3/s) July 3, 1982, gage height, 4.91 ft (1.497 m); minimum daily, 370 ft^3/s (10.5 m^3/s) Dec. 23-25, 1981.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 2,180 ft^3/s (61.7 m^3/s) at 2200 July 3, gage height, 4.91 ft (1.497 m); minimum daily, 370 ft^3/s (10.5 m^3/s) Dec. 23-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											---	988
2											---	980
3											---	998
4											---	1020
5											---	1000
6											---	988
7											---	984
8											---	980
9											---	908
10											---	912
11											---	857
12											---	843
13											---	832
14											---	822
15											---	822
16											---	808
17											---	759
18											---	752
19											---	815
20											957	815
21											975	822
22											1050	840
23											1060	843
24											1060	836
25											1050	832
26											1050	770
27											1050	752
28											1040	752
29											1040	756
30											1030	714
31											1050	---
MAX											---	1020
MIN											---	714

09058030 COLORADO RIVER NEAR RADIUM, CO--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	710	489	430	400	450	430	468	701	1820	1690	1080	916
2	701	489	400	400	450	425	492	836	1710	1980	1040	885
3	728	489	390	400	450	425	508	980	1700	2090	1000	868
4	738	489	400	420	450	425	482	1100	1670	2120	957	864
5	756	484	400	460	450	425	489	1260	1580	2040	930	878
6	752	480	400	495	450	425	484	1110	1620	2020	944	912
7	692	480	400	490	450	430	508	944	1640	1890	1030	926
8	683	484	395	495	445	430	520	868	1520	1630	1050	885
9	647	489	395	495	445	430	520	894	1500	1400	1050	857
10	568	487	395	495	445	430	520	930	1500	1430	1050	850
11	558	475	395	500	445	425	525	948	1560	1400	1050	843
12	576	468	400	500	450	425	555	1020	1780	1300	1030	944
13	576	468	396	495	450	425	618	1100	1770	1160	1170	916
14	535	470	404	495	450	430	659	1030	1760	908	1340	921
15	523	480	408	490	450	430	724	970	1730	975	1350	885
16	530	492	400	480	450	430	780	988	1710	1020	1380	912
17	542	482	400	460	450	430	717	1030	1660	916	1380	921
18	552	468	400	455	450	430	704	998	1840	857	1300	812
19	552	468	390	455	450	435	717	998	2000	878	1300	801
20	528	448	380	450	450	440	710	1100	1740	1020	1290	798
21	532	438	375	450	450	445	680	1120	1640	912	1320	801
22	535	446	375	450	450	445	653	1160	1560	894	1390	801
23	511	448	370	450	450	445	644	1280	1570	818	1400	794
24	501	442	370	450	450	445	717	1420	1550	847	1360	787
25	511	440	370	450	450	450	770	1500	1530	840	1340	770
26	513	438	380	450	450	450	826	1460	1720	854	1360	780
27	511	418	380	450	450	450	882	1480	1710	898	1180	787
28	513	416	390	450	450	450	832	1560	1630	903	1050	787
29	511	420	400	450	---	450	674	1730	1580	939	1110	808
30	506	426	400	450	---	455	629	1860	1590	1160	1080	804
31	501	---	400	450	---	466	---	1910	---	1080	939	---
TOTAL	18092	13911	12188	14280	12580	13526	19007	36285	49890	38869	36250	25513
MEAN	584	464	393	461	449	436	634	1170	1663	1254	1169	850
MAX	756	492	430	500	450	466	882	1910	2000	2120	1400	944
MIN	501	416	370	400	445	425	468	701	1500	818	930	770
AC-FT	35890	27590	24170	28320	24950	26830	37700	71970	98960	77100	71900	50610

WTR YR 1982 TOTAL 290391 MEAN 796 MAX 2120 MIN 370 AC-FT 576000

NOTE.--NO GAGE-HEIGHT RECORD DEC. 17 TO MAR. 30.

COLORADO RIVER MAIN STEM

09058030 COLORADO RIVER NEAR RADIUM, CO

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1981 to September 1982.

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
AUG 20...	1400	940	170	174	8.0	13.5	3.4	8.6	K9

DATE	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
AUG 20...	72	22	4.1	1.3	56	.5	16	2.9	106

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
AUG 20...	.14	269	19	.11	.030	.14	.150	.040	<.010

DATE	ARSENIC TOTAL (UG/L AS AS)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)
AUG 20...	1	30	0	10	4	320	42	6

DATE	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	CYANIDE TOTAL (MG/L AS CN)	ALGAL GROWTH POTENTIAL, BOTTLE TEST (MG/L)
AUG 20...	50	13	.1	2	0	0	.00	1.5

K BASED ON NON-IDEAL COLONY COUNT.

09058030 COLORADO RIVER NEAR RADIUM, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (FTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)
NOV 12...	1300	470	200	198	7.6	3.5	3.1	11.2	--	K6
MAR 30...	1130	472	290	296	7.9	1.5	15	11.2	--	<2
APR 20...	1500	730	225	243	7.8	3.0	12	10.7	82	K5
MAY 24...	1240	1450	205	219	7.8	11.0	74	8.4	--	190
JUN 16...	1000	1720	232	250	7.9	11.0	23	8.5	160	120
JUL 20...	1300	1070	318	303	7.7	16.0	7.2	7.2	--	100
AUG 18...	0935	1290	170	180	7.7	13.0	6.7	8.6	160	36
SEP 15...	1100	891	200	199	8.6	10.0	6.3	9.4	--	--

DATE	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA)	MAGNESIUM, TOTAL RECOVERABLE (MG/L AS MG)	SODIUM, TOTAL RECOVERABLE (MG/L AS NA)	POTASSIUM, TOTAL RECOVERABLE (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV 12...	--	--	--	8.0	1.9	--	.6	27	20	125
MAR 30...	--	--	--	15	2.2	84	4.1	69	3.8	188
APR 20...	--	--	--	8.3	1.9	55	<.5	39	17	159
MAY 24...	--	33	8.4	8.0	2.5	66	2.2	13	2.8	136
JUN 16...	--	33	7.1	8.7	1.6	77	.6	40	4.5	154
JUL 20...	--	36	8.4	11	1.9	101	<.5	49	2.1	189
AUG 18...	--	22	4.5	6.1	1.5	61	1.3	22	3.6	112
SEP 15...	K54	25	5.4	7.9	1.6	58	.8	28	1.8	158

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, ORTHO, TOTAL (MG/L AS P)
NOV 12...	.17	159	0	<.020	.02	.55	.57	.090	.070
MAR 30...	.26	240	27	<.020	<.10	.64	--	.020	.030
APR 20...	.22	313	25	<.020	<.10	.66	--	.030	.030
MAY 24...	.18	532	197	<.020	<.10	1.40	--	.170	.040
JUN 16...	.21	715	62	<.020	<.10	1.30	--	.090	.100
JUL 20...	.26	543	31	<.020	<.10	1.10	--	.040	.030
AUG 18...	.15	390	10	<.020	<.10	.80	--	.080	.020
SEP 15...	.21	380	13	<.020	<.10	.50	--	.050	.030

K BASED ON NON-IDEAL COLONY COUNT.

09058030 COLORADO RIVER NEAR RADIUM, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOV-ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
NOV									
12...	1	190	1	6	7	400	50	1	40
MAR									
30...	1	70	1	6	9	780	90	5	70
APR									
20...	1	70	<1	7	3	1200	50	1	60
MAY									
24...	2	40	<1	9	9	6500	90	3	190
JUN									
16...	1	70	<1	<1	4	1700	80	<1	90
JUL									
20...	1	60	<1	8	2	830	120	<1	90
AUG									
18...	1	70	<1	6	2	600	60	<1	60
SEP									
15...	1	50	<1	1	3	680	20	4	50

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	CYANIDE TOTAL (MG/L AS CN)	ALGAL GROWTH POTEN-TIAL, BOTTLE TEST (MG/L)
NOV								
12...	20	<.1	<.0	2	<1	<1	>.01	.1
MAR								
30...	30	<.1	--	2	<1	<1	<.01	2.3
APR								
20...	20	<.1	--	2	1	<1	<.01	--
MAY								
24...	30	.1	--	6	1	<1	<.01	--
JUN								
16...	40	.1	--	9	1	<1	<.01	2.0
JUL								
20...	40	.2	--	3	<1	<1	<.01	--
AUG								
18...	20	.1	--	3	<1	<1	<.01	--
SEP								
15...	20	<.1	--	2	1	<1	<.01	--

09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO

LOCATION.--Lat 39°42'29", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi (2.3 km) upstream from Dickson Creek, 2.0 mi (3.2 km) downstream from Piney Lake, and 8.5 mi (13.7 km) north of Minturn.

DRAINAGE AREA.--13.0 mi^2 (33.7 km^2).

PERIOD OF RECORD.--October 1947 to September 1954, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9,145.25 ft (2,787.472 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to October 1963, water-stage recorder at site 15 ft (5 m) upstream at present datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 23.9 ft^3/s (0.677 m^3/s), 17,320 acre-ft/yr (21.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 413 ft^3/s (11.7 m^3/s) July 5, 1975, gage height, 5.47 ft (1.667 m); maximum gage height observed, 6.44 ft (1.963 m) Apr. 13, 1977; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s (4.2 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)			(ft^3/s)	(m^3/s)	(ft)	(m)
June 18	0500	175	4.96	4.28	1.305	June 29	0400	* 331	9.37	4.76	1.451

Minimum daily discharge, 2.2 ft^3/s (0.062 m^3/s) Feb. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	9.9	4.8	3.6	3.0	2.8	4.2	31	106	172	50	9.9
2	6.8	10	5.5	3.6	3.0	2.8	4.2	44	98	172	47	8.8
3	7.6	10	6.0	3.8	3.2	2.8	4.2	48	100	147	42	8.3
4	9.6	10	5.5	4.4	3.2	2.4	4.2	53	86	134	39	7.9
5	13	10	5.5	4.6	2.8	2.4	4.0	54	111	110	34	9.0
6	13	10	5.5	4.0	3.0	2.4	3.6	41	116	109	31	11
7	15	10	5.5	3.4	2.8	2.4	3.4	34	110	109	29	10
8	16	9.9	5.0	3.8	3.0	2.6	3.2	33	114	109	29	9.2
9	15	9.5	5.0	3.8	3.2	2.6	3.2	35	106	109	29	11
10	14	9.5	5.0	3.8	3.6	2.6	5.0	41	112	103	28	10
11	13	8.5	5.5	4.0	3.6	2.8	7.0	40	105	103	25	10
12	14	7.5	5.0	4.0	3.2	3.0	8.5	38	110	104	25	17
13	14	6.9	5.0	4.2	3.0	3.2	10	37	111	105	25	18
14	15	6.8	5.0	4.4	2.8	3.4	12	32	109	103	37	19
15	15	7.2	5.0	4.4	2.6	3.6	14	28	112	103	29	17
16	15	7.7	5.0	3.8	2.4	3.6	16	28	116	95	26	18
17	14	7.5	4.8	3.8	2.2	3.6	15	29	138	96	23	17
18	14	7.5	4.[illegible]	4.0	2.4	3.6	15	31	152	89	24	15
19	13	7.7	5.0	4.0	2.4	3.4	15	36	123	87	21	15
20	13	7.5	4.6	4.2	2.4	3.2	15	38	119	84	20	15
21	13	7.5	4.6	4.2	2.4	3.0	15	41	129	77	21	13
22	12	7.5	4.2	3.6	2.4	3.0	15	54	131	73	18	12
23	11	7.0	3.8	3.6	2.4	3.0	13	67	135	74	16	12
24	11	6.5	3.2	3.8	2.4	3.0	14	69	129	71	15	11
25	10	6.5	4.0	4.0	2.4	3.2	15	64	129	70	14	10
26	10	6.5	3.8	3.4	2.4	3.4	17	63	129	72	16	11
27	10	6.0	4.0	3.2	2.4	3.6	19	82	133	67	14	11
28	10	6.0	4.4	3.2	2.6	3.8	19	97	188	69	13	11
29	10	5.5	4.8	3.2	---	4.0	20	101	198	88	12	11
30	10	5.0	4.8	3.2	---	4.0	23	103	175	67	11	12
31	10	---	4.8	3.0	---	4.2	---	94	---	59	11	---
TOTAL	374.1	237.6	149.2	118.0	77.2	97.4	336.7	1586	3730	3030	774	370.1
MEAN	12.1	7.92	4.81	3.81	2.76	3.14	11.2	51.2	124	97.7	25.0	12.3
MAX	16	10	6.0	4.6	3.6	4.2	23	103	198	172	50	19
MIN	6.8	5.0	3.2	3.0	2.2	2.4	3.2	28	86	59	11	7.9
AC-FT	742	471	296	234	153	193	668	3150	7400	6010	1540	734

CAL YR 1981 TOTAL 5981.18 MEAN 16.4 MAX 191 MIN .56 AC-FT 11860
WTR YR 1982 TOTAL 10880.30 MEAN 29.8 MAX 198 MIN 2.2 AC-FT 21580

NOTE.--NO GAGE-HEIGHT RECORD NOV. 24 TO APR. 22.

09058610 DICKSON CREEK NEAR VAIL, CO

LOCATION.--Lat 39°42'14", long 106°27'25", Eagle County, Hydrologic Unit 14010001, on right bank 0.6 mi (1.0 km) upstream from Freeman Creek, 1.0 mi (1.6 km) upstream from mouth, and 6 mi (9.7 km) northwest of Vail.

DRAINAGE AREA.--3.41 mi² (8.83 km²).

PERIOD OF RECORD.--October 1971 to current year. Prior to October 1972, published as "near Minturn."

GAGE.--Water-stage recorder. Altitude of gage is 9,245 ft (2,818 m), from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage height record, which are poor. Diversion by Willy N. ditch 75 ft (23 m) above station for irrigation of hay meadows below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 2.38 ft³/s (0.067 m³/s), 1,720 acre-ft/yr (2.12 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s (1.36 m³/s) May 6, 1979, gage height, 2.75 ft (0.838 m); maximum gage height recorded, 2.92 ft (0.890 m) Nov. 16, 1973 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft³/s (0.31 m³/s) at 0200 June 5, gage height, 2.09 ft (0.637 m), minimum daily, 0.09 ft³/s (0.003 m³/s) Aug. 19, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.96	.78	.58	.52	.51	.51	4.1	7.4	2.7	.50	.12
2	.71	1.0	.76	.53	.52	.51	.51	4.1	8.4	2.4	.40	.10
3	.79	1.0	.74	.53	.51	.51	.51	4.1	9.1	2.2	.37	.11
4	.74	.96	.72	.58	.50	.51	.51	4.3	8.1	2.1	.32	.11
5	.64	.96	.70	.58	.49	.52	.51	4.6	9.5	2.2	.27	.11
6	.79	.96	.69	.58	.48	.52	.51	4.3	9.5	2.0	.24	.50
7	1.2	1.0	.68	.58	.48	.52	.51	4.3	8.8	1.9	.27	.96
8	1.1	1.0	.67	.58	.49	.52	.51	4.6	8.8	1.8	.19	1.0
9	1.2	.96	.66	.58	.49	.52	.52	4.6	8.8	1.9	.16	.96
10	1.1	.96	.64	.58	.49	.52	.54	4.6	8.4	2.7	.14	1.0
11	.96	.90	.64	.58	.49	.52	.58	4.6	8.1	3.6	.12	1.2
12	1.2	.90	.64	.58	.50	.52	.60	4.6	8.4	3.4	.14	1.4
13	1.2	.96	.63	.58	.50	.52	.64	4.6	8.4	3.3	.14	1.4
14	1.1	.96	.63	.53	.50	.52	.66	4.8	7.0	3.3	.12	1.3
15	1.1	.91	.63	.58	.50	.52	.66	4.8	6.4	3.2	.11	1.2
16	1.2	.90	.63	.58	.50	.52	.66	4.6	5.8	3.2	.11	1.2
17	1.1	.92	.63	.58	.50	.52	.66	4.8	5.8	3.0	.12	1.2
18	1.1	1.0	.63	.58	.50	.52	.65	4.8	6.0	2.8	.10	1.2
19	1.1	1.0	.62	.58	.50	.52	.65	4.8	5.5	2.0	.09	1.2
20	1.1	.98	.62	.58	.51	.52	.65	4.8	5.3	1.9	.10	1.2
21	1.0	1.0	.61	.53	.51	.52	.97	4.8	4.8	1.9	.10	1.3
22	.90	.98	.60	.53	.51	.52	1.5	5.3	4.6	1.9	.10	1.3
23	.85	.98	.59	.58	.51	.52	1.5	5.0	4.6	1.8	.09	1.4
24	.90	.98	.56	.58	.51	.52	1.7	4.8	4.3	1.8	.10	1.4
25	.90	.98	.56	.53	.51	.51	1.7	4.6	4.3	1.7	.10	1.5
26	.90	.92	.56	.57	.51	.51	2.2	4.8	4.3	1.5	.10	1.6
27	.90	.92	.57	.56	.51	.51	2.0	5.8	3.8	1.4	.10	1.6
28	.96	.88	.56	.56	.51	.51	2.0	6.4	3.6	1.1	.11	1.9
29	1.0	.85	.56	.55	---	.51	2.4	7.0	3.3	.96	.11	1.8
30	1.1	.81	.58	.54	---	.51	2.7	7.4	2.8	.90	.12	1.8
31	1.0	---	.58	.53	---	.51	---	7.0	---	.79	.11	---
TOTAL	30.55	28.47	19.71	17.81	14.05	16.01	30.42	153.7	193.9	67.35	5.15	33.07
MEAN	.99	.95	.64	.57	.50	.52	1.01	4.96	6.46	2.17	.17	1.10
MAX	1.2	1.0	.78	.58	.52	.52	2.7	7.4	9.5	3.6	.50	1.9
MIN	.64	.81	.56	.53	.48	.51	.51	4.1	2.8	.79	.09	.10
AC-FT	61	57	39	35	28	32	60	305	385	134	10	66

CAL YR 1981 TOTAL 418.38 MEAN 1.15 MAX 5.9 MIN .14 AC-FT 830
WTR YR 1982 TOTAL 610.21 MEAN 1.67 MAX 9.5 MIN .09 AC-FT 1210

NOTE.--NO GAGE-HEIGHT RECORD DEC. 30 TO APR. 21.

09058700 FREEMAN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°41'55", long 106°26'41", Eagle County, Hydrologic Unit 14210001, on right bank 0.8 mi (1.3 km) upstream from mouth and 7.5 mi (12.1 km) north of Minturn.

DRAINAGE AREA.--2.94 mi^2 (7.61 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,335 ft (2,845 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and winter period, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 1.19 ft^3/s (0.034 m^3/s), 862 acre-ft/yr (1.06 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35 ft^3/s (0.99 m^3/s) May 28, 1976, gage height, 2.60 ft (0.792 m); maximum gage height, 3.51 ft (1.070 m) May 18, 1973 (backwater from ice); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft^3/s (0.62 m^3/s) at 1900 May 28, gage height, 2.06 ft (0.628 m) ; maximum gage height, 2.15 ft (0.655 m) Jan. 1, backwater from ice, no peak above base of 25 ft^3/s (0.71 m^3/s); minimum daily discharge, 0.04 ft^3/s (0.001 m^3/s) Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.29	.14	.16	.10	.09	.08	1.5	13	3.2	.56	.25
2	.13	.28	.12	.12	.10	.09	.08	1.8	13	3.0	.59	.25
3	.19	.25	.12	.12	.09	.10	.08	2.6	11	2.7	.54	.24
4	.27	.22	.14	.12	.08	.09	.08	3.6	11	2.5	.49	.23
5	.45	.26	.14	.12	.08	.10	.08	4.3	11	2.3	.48	.34
6	.33	.23	.14	.14	.08	.10	.08	4.2	11	2.5	.39	.39
7	.24	.22	.14	.14	.10	.10	.08	4.3	10	2.1	.38	.31
8	.21	.23	.14	.14	.10	.10	.08	4.3	9.8	2.0	.33	.29
9	.24	.23	.14	.14	.10	.09	.09	4.2	9.5	2.3	.44	.32
10	.23	.21	.14	.14	.10	.09	.08	4.4	9.6	2.1	.38	.27
11	.23	.20	.14	.15	.10	.10	.12	4.6	9.5	1.8	.32	.38
12	.24	.20	.12	.16	.10	.10	.20	4.6	9.8	1.7	.32	.62
13	.24	.19	.12	.16	.10	.10	.21	4.1	10	1.5	.34	.54
14	.23	.18	.12	.15	.10	.10	.23	3.6	9.7	1.4	.54	.59
15	.25	.18	.10	.15	.10	.10	.25	3.2	9.0	1.3	.34	.47
16	.25	.16	.12	.14	.10	.10	.29	3.0	8.3	1.3	.31	.32
17	.25	.16	.12	.15	.10	.10	.30	3.2	7.9	1.2	.29	.29
18	.27	.16	.12	.15	.10	.09	.29	3.5	8.1	1.2	.29	.30
19	.25	.16	.08	.14	.10	.09	.28	4.1	7.3	1.1	.30	.32
20	.24	.16	.10	.12	.10	.08	.28	4.3	6.8	1.0	.30	.30
21	.26	.14	.16	.10	.10	.08	.35	5.0	6.2	.96	.29	.30
22	.28	.14	.14	.10	.10	.08	.42	7.4	5.7	.89	.30	.26
23	.26	.16	.12	.10	.10	.08	.47	9.7	5.7	.89	.31	.30
24	.26	.16	.10	.11	.10	.08	.57	9.9	5.4	.85	.30	.32
25	.25	.14	.04	.10	.09	.08	.62	9.2	5.1	.84	.29	.28
26	.25	.14	.06	.11	.09	.08	.74	11	4.8	.81	.34	.30
27	.28	.14	.10	.11	.10	.08	.80	12	4.4	.79	.31	.32
28	.28	.12	.12	.10	.09	.09	.89	14	4.0	.83	.28	.42
29	.23	.12	.10	.11	---	.09	.98	13	3.8	.81	.28	.40
30	.25	.14	.10	.10	---	.08	1.2	12	3.6	.85	.28	.34
31	.27	---	.16	.12	---	.08	---	13	---	.67	.26	---
TOTAL	7.74	5.57	3.70	3.97	2.70	2.81	10.30	189.6	244.0	47.39	11.17	10.26
MEAN	.25	.19	.12	.13	.096	.091	.34	6.12	8.13	1.53	.36	.34
MAX	.45	.29	.16	.16	.10	.10	1.2	14	13	3.2	.59	.62
MIN	.13	.12	.04	.10	.08	.08	.08	1.5	3.6	.67	.26	.23
AC-FT	15	11	7.3	7.9	5.4	5.6	20	376	484	94	22	20

CAL YR 1981 TOTAL 137.07 MEAN .38 MAX 6.0 MIN .00 AC-FT 272
WTR YR 1982 TOTAL 539.21 MEAN 1.48 MAX 14 MIN .04 AC-FT 1070

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO DEC. 31, JAN. 3 TO FEB. 4.

PINEY RIVER BASIN

09058800 EAST MEADOW CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°43'54", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi (2.3 km) upstream from mouth and 10 mi (16 km) north of Minturn.

DRAINAGE AREA.--3.61 mi² (9.35 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,455 ft (2,882 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 4.24 ft³/s (0.120 m³/s), 3,070 acre-ft/yr (3.79 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74 ft³/s (2.10 m³/s) July 4, 1975, gage height, 2.13 ft (0.649 m); maximum gage height, 2.22 ft (0.677 m) May 12, 1970 (backwater from ice); minimum daily discharge, 0.32 ft³/s (0.009 m³/s) Jan. 7, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft³/s (1.02 m³/s), at 2100, June 28, gage height, 1.55 ft (0.472 m); no peak above base of 40 ft³/s (1.1 m³/s); minimum daily, 0.52 ft³/s (0.015 m³/s) Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	.90	.76	.71	.62	.63	.69	3.7	20	31	4.5	1.6
2	1.0	.90	.76	.72	.62	.62	.69	4.2	20	29	4.5	1.6
3	1.2	.90	.78	.72	.61	.62	.68	4.4	19	27	4.5	1.4
4	1.6	.90	.79	.74	.59	.62	.68	5.0	21	26	4.2	1.4
5	1.9	.90	.79	.76	.57	.62	.68	4.9	24	24	3.7	2.0
6	1.7	.90	.79	.76	.56	.62	.68	3.4	24	23	3.5	1.9
7	1.6	.90	.79	.76	.56	.62	.68	2.9	24	20	3.2	1.6
8	1.5	.90	.78	.76	.57	.62	.67	3.0	26	19	3.2	1.6
9	1.5	.87	.77	.76	.58	.62	.68	3.9	26	19	3.3	1.7
10	1.4	.84	.76	.76	.59	.62	.70	4.6	26	18	3.2	1.4
11	1.4	.84	.75	.76	.60	.62	.82	4.5	26	16	3.1	2.4
12	1.5	.86	.74	.76	.61	.62	.93	4.2	26	16	2.9	3.3
13	1.8	.87	.74	.76	.61	.62	1.1	4.0	26	15	3.1	2.7
14	1.9	.88	.74	.74	.61	.62	1.2	3.5	25	14	3.6	2.5
15	1.7	.86	.74	.72	.62	.62	1.3	3.2	24	13	2.8	2.2
16	1.7	.85	.72	.71	.62	.62	1.3	3.2	26	12	2.5	2.0
17	1.6	.85	.70	.70	.62	.62	1.2	3.2	28	12	2.7	1.7
18	1.6	.83	.74	.69	.62	.62	1.2	3.6	30	10	2.8	1.5
19	1.5	.81	.80	.68	.63	.62	1.2	4.2	28	9.0	2.4	1.6
20	1.3	.84	.80	.68	.64	.62	1.2	4.0	27	8.0	2.4	1.5
21	1.2	.86	.73	.69	.64	.63	1.2	4.6	27	7.7	2.4	1.4
22	1.2	.84	.66	.68	.64	.64	1.3	7.2	27	7.3	2.2	1.4
23	1.2	.83	.52	.68	.64	.64	1.4	8.8	29	7.0	2.1	1.4
24	1.3	.83	.62	.70	.64	.65	1.3	8.6	30	7.0	1.9	1.4
25	1.3	.78	.67	.70	.64	.66	1.4	7.7	31	7.7	2.1	1.4
26	1.3	.76	.68	.67	.64	.66	1.6	10	31	7.7	2.2	1.4
27	1.3	.76	.68	.68	.64	.68	1.5	14	30	7.0	1.9	1.4
28	1.3	.76	.72	.68	.64	.68	1.6	15	32	7.0	1.7	1.6
29	1.0	.76	.79	.68	---	.67	1.8	17	33	7.0	1.8	1.8
30	.92	.76	.78	.67	---	.66	2.1	18	32	5.7	1.6	2.0
31	.92	---	.73	.65	---	.68	---	18	---	5.4	1.6	---
TOTAL	43.33	25.34	22.82	22.13	17.17	19.60	33.48	206.5	798	437.5	87.6	52.8
MEAN	1.40	.84	.74	.71	.61	.63	1.12	6.66	26.6	14.1	2.83	1.76
MAX	1.9	.90	.80	.76	.64	.68	2.1	18	33	31	4.5	3.3
MIN	.92	.76	.52	.65	.56	.62	.67	2.9	19	5.4	1.6	1.4
AC-FT	86	50	45	44	34	39	66	410	1580	868	174	105

CAL YR 1981 TOTAL 987.44 MEAN 2.71 MAX 27 MIN .52 AC-FT 1960
WTR YR 1982 TOTAL 1766.33 MEAN 4.84 MAX 33 MIN .52 AC-FT 3500

NOTE.--NO GAGE-HEIGHT RECORD OCT. 24 TO APR. 21.

09059500 PINEY RIVER NEAR STATE BRIDGE, CO

LOCATION.--Lat 39°48'00", long 106°35'00", in sec.16, T.3 S., R.82 W., Eagle County, Hydrologic Unit 14010001, on left bank at downstream side of private bridge at Perry Olsen Ranch 1.2 mi (1.9 km) downstream from Rock Creek, and 6.0 mi (9.7 km) southeast of State Bridge.

DRAINAGE AREA.--86.2 mi² (223.3 km²).

PERIOD OF RECORD.--May 1944 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,272.35 ft (2,216.612 m), National Geodetic Vertical Datum of 1929. Prior to July 29, 1944, nonrecording gage, and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft (0.725 m) higher.

REMARKS.--Records good except for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 400 acres (1.62 km²) of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--38 years, 73.7 ft³/s (2.087 m³/s) 53,400 acre-ft/yr (65.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s (31.4 m³/s) June 8, 1952, gage height, 5.61 ft (1.710 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 1, 18, 19, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 593 ft³/s (16.8 m³/s) at 0200 June 6, gage height, 4.41 ft (1.344 m), only peak above base of 520 ft³/s (15 m³/s); minimum daily, 7.5 ft³/s (0.212 m³/s) Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	15	12	10	11	12	26	152	496	376	73	20
2	9.6	16	12	13	12	12	24	210	496	361	73	20
3	11	15	12	13	12	12	26	243	469	311	65	19
4	16	16	11	13	12	13	28	281	436	282	65	20
5	24	16	10	12	13	14	28	262	503	240	60	22
6	20	17	10	9.0	13	15	28	178	538	219	55	25
7	20	17	12	10	11	15	28	140	503	192	50	23
8	21	17	12	12	12	14	26	135	531	180	50	23
9	21	16	12	13	11	13	24	158	517	186	50	24
10	19	17	12	13	9.0	13	22	186	524	170	49	23
11	19	17	12	11	10	13	22	184	476	148	49	26
12	24	16	12	9.5	12	13	32	179	496	144	48	42
13	22	16	11	12	14	13	50	165	503	145	48	41
14	23	15	12	12	15	15	55	136	448	139	56	42
15	22	16	13	11	15	20	50	121	404	138	51	37
16	23	16	13	13	14	20	50	121	381	115	48	37
17	21	16	12	14	13	20	50	125	435	113	49	34
18	21	15	12	15	12	20	48	146	480	104	45	32
19	21	16	13	12	12	20	48	180	411	101	44	32
20	20	15	13	12	12	20	48	190	388	100	42	32
21	20	15	12	13	12	20	50	195	406	93	42	31
22	18	15	10	14	12	20	50	265	404	90	38	33
23	16	15	13	14	11	19	60	325	426	89	34	32
24	17	15	12	15	12	19	65	327	415	89	30	32
25	16	15	11	15	12	19	74	302	423	85	30	30
26	16	15	11	14	13	19	81	301	420	92	32	30
27	16	14	10	14	13	20	80	383	354	86	30	28
28	15	13	7.5	14	13	20	80	446	428	82	26	24
29	15	13	9.0	15	---	22	90	483	435	112	26	25
30	15	13	11	15	---	24	102	496	388	86	24	26
31	15	---	10	12	---	24	---	455	---	76	22	---
TOTAL	566.3	463	354.5	394.5	343.0	533	1445	7470	13534	4744	1404	865
MEAN	18.3	15.4	11.4	12.7	12.3	17.2	48.2	241	451	153	45.3	28.8
MAX	24	17	13	15	15	24	102	496	538	376	73	42
MIN	9.6	13	7.5	9.0	9.0	12	22	121	354	76	22	19
AC-FT	1120	918	703	782	680	1060	2870	14820	26840	9410	2780	1720

CAL YR 1981 TOTAL 17086.1 MEAN 46.8 MAX 420 MIN 7.5 AC-FT 33890
WTR YR 1982 TOTAL 32116.3 MEAN 88.0 MAX 538 MIN 7.5 AC-FT 63700

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO APR. 22.

09060950 BIG ALKALI CREEK BELOW CASTLE CREEK, NEAR BURNS, CO

LOCATION.--Lat 39°51'52", long 106°49'01", in NE¼SE¼ sec. 20, T.2 S., R.84 W., Eagle County, Hydrologic Unit 14010001, on left bank 1,200 ft (366 m) below Castle Creek, 1.0 mi (1.6 km) above mouth and 3.0 mi (4.8 km) east of Burns, CO.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--October 1981 to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 7,040 ft (2,146 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Water stored in Hurt Reservoir, approximate capacity, 100 ac/ft (123,000 m), for use in Catamount Creek Drainage. Diversion out of basin for irrigation of land along the Colorado River.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s (1.36 m³/s) May 4, 1982, gage height, 2.19 ft (0.668 m); minimum daily, 0.13 ft³/s (0.004 m³/s) Oct. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48 ft³/s (1.36 m³/s) at 0500 May 4, gage height, 2.19 ft (0.668 m); minimum daily, 0.13 ft³/s (0.004 m³/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.98	.68	.75	.80	1.2	1.1	15	32	14	2.2	1.1
2	.13	1.0	.64	.74	.80	1.2	1.1	19	29	13	1.8	1.2
3	.15	.99	.62	.74	.80	1.2	1.2	24	29	11	1.6	1.1
4	.20	.92	.58	.72	.80	1.1	1.1	43	27	9.8	1.4	1.1
5	.17	.87	.58	.68	.82	1.0	1.0	37	27	9.2	1.3	1.4
6	.14	.87	.58	.64	.82	1.1	1.1	27	26	8.7	1.3	1.6
7	.24	.92	.58	.66	.84	.90	1.3	16	27	8.7	1.4	1.6
8	.19	.92	.56	.68	.84	.86	1.4	17	28	8.7	1.3	1.5
9	.15	.80	.55	.70	.86	.78	1.9	23	27	10	1.4	1.3
10	.37	.70	.55	.72	.88	.84	1.5	33	27	7.7	1.5	1.2
11	3.7	.71	.55	.72	.90	1.0	1.4	31	26	7.3	1.4	2.7
12	6.4	.72	.56	.73	.92	1.2	4.9	34	27	7.0	1.7	3.6
13	4.7	.71	.57	.74	.94	1.0	8.5	27	27	6.2	2.0	3.4
14	1.4	.70	.58	.74	.94	1.3	9.0	23	26	6.2	1.9	2.9
15	1.1	.66	.58	.76	.95	1.3	3.8	23	27	5.4	1.9	2.8
16	1.1	.57	.58	.78	.96	1.3	5.6	24	24	4.7	1.7	3.0
17	8.6	.54	.58	.78	.96	1.2	6.2	22	23	4.7	1.8	1.9
18	5.0	.62	.59	.78	.96	1.0	7.7	26	25	3.9	1.7	1.9
19	3.7	.58	.62	.76	.96	1.0	8.0	27	25	3.5	1.7	1.8
20	2.3	.60	.66	.74	.98	1.1	6.0	24	24	3.2	1.6	2.3
21	1.5	.73	.66	.72	.99	1.0	4.3	23	22	3.0	1.3	2.1
22	1.0	.70	.64	.72	1.0	1.1	2.9	30	18	2.6	1.2	2.0
23	.66	.64	.64	.72	1.0	1.1	3.7	32	19	2.8	1.2	2.0
24	.70	.58	.64	.72	1.0	1.1	4.3	29	18	2.6	1.2	1.9
25	.68	.62	.66	.72	1.1	1.1	4.7	37	17	3.2	1.2	2.2
26	.66	.54	.68	.74	1.1	1.2	5.2	34	17	3.9	1.4	2.2
27	.72	.67	.70	.77	1.1	1.3	5.8	34	18	3.7	1.4	2.7
28	.81	.70	.70	.80	.96	1.5	6.4	35	14	3.5	1.3	2.6
29	.89	.70	.72	.80	---	1.6	9.2	34	14	2.4	1.3	2.3
30	1.0	.70	.72	.80	---	1.3	11	34	14	2.1	1.3	2.2
31	.96	---	.74	.80	---	1.1	---	29	---	2.4	1.2	---
TOTAL	49.46	21.96	19.29	22.87	25.98	35.04	131.3	866	704	185.1	46.6	61.6
MEAN	1.60	.73	.62	.74	.93	1.13	4.38	27.9	23.5	5.97	1.50	2.05
MAX	8.6	1.0	.74	.80	1.1	1.6	11	43	32	14	2.2	3.6
MIN	.13	.54	.55	.64	.80	.78	1.0	15	14	2.1	1.2	1.1
AC-FT	98	44	38	45	52	70	260	1720	1400	367	92	122

WTR YR 1982 TOTAL 2169.20 MEAN 5.94 MAX 43 MIN .13 AC-FT 4300

NOTE.--NO GAGE-HEIGHT RECORD OCT. 20 TO FEB. 17, MAR. 7 TO APR. 9.

EAGLE RIVER BASIN

09063000 EAGLE RIVER AT RED CLIFF, CO

LOCATION.--Lat 39°30'30", long 106°21'58", in NW¼SW¼ sec.20, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank at Red Cliff, 0.3 mi (0.5 km) upstream from Turkey Creek.

DRAINAGE AREA.--70.0 mi² (181.3 km²).

PERIOD OF RECORD.--October 1910 to September 1925, May 1944 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WRD Colo. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 8,653.79 ft (2,637.676 m), (corrected), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Jan. 8, 1911, to Sept. 30, 1925, nonrecording gage at bridge 0.2 mi (0.3 km) downstream at different datum. May 25, 1944, to Oct. 12, 1952, water-stage recorder at site 200 ft (61 m) upstream at datum 1.46 ft (0.445 m) lower. Prior to May 6, 1982, at site 250 ft (76 m) downstream at datum 5.00 ft (1.524 m) lower.

REMARKS.--Records good except those for winter period and those for period of no gage height record, which are poor. Transmountain diversions above station by Columbine, Ewing, and Wurtz ditches (see elsewhere in this report). Transbasin diversion above station from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm³) to Tenmile Creek for mining development. Small diversions for irrigation of 400 acres (1.62 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--53 years (water years 1911-25, 1945-82), 47.8 ft³/s (1.354 m³/s), 34,630 acre-ft/yr (42.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,010 ft³/s (28.6 m³/s) June 5, 1912, gage height, 4.0 ft (1.22 m), site and datum then in use, from rating curve extended above 500 ft³/s (14 m³/s); maximum gage height recorded, 4.23 ft (1.289 m) Nov. 28, 1972 (backwater from ice); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Oct. 15, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 255 ft³/s (7.22 m³/s) at 2200 June 9, gage height 4.59 ft (1.399 m), no peak above base of 280 ft³/s (7.9 m³/s); minimum daily, 7.0 ft³/s (0.198 m³/s) Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	10	10	9.0	9.0	9.0	28	191	157	36	17
2	11	12	9.5	10	8.5	9.0	10	36	196	144	34	16
3	13	12	9.5	9.5	8.5	9.5	9.5	44	192	133	34	16
4	13	11	10	10	8.0	9.5	9.5	55	182	126	33	15
5	13	11	10	9.5	8.5	9.0	9.5	70	199	116	32	20
6	12	11	9.5	11	8.0	8.5	9.5	82	209	108	30	23
7	12	11	10	10	8.0	8.0	9.5	71	206	100	30	18
8	12	11	10	10	7.5	8.0	9.5	67	221	93	27	17
9	12	11	10	9.5	8.5	8.5	9.0	75	226	88	28	18
10	11	11	10	10	10	8.5	9.0	86	228	84	28	18
11	11	10	10	10	10	8.5	9.0	88	224	77	28	20
12	12	10	10	10	10	9.0	9.5	88	225	72	31	32
13	12	10	10	10	10	11	11	77	235	68	35	26
14	12	11	9.5	10	9.5	10	13	66	228	66	35	26
15	14	11	9.5	10	9.5	10	15	63	214	59	30	23
16	16	10	9.5	10	9.0	10	17	62	206	52	32	20
17	15	10	9.5	10	8.5	10	20	60	214	49	26	19
18	14	11	9.0	10	8.5	10	17	64	230	47	24	18
19	14	11	8.5	9.5	8.5	9.5	18	69	209	45	25	18
20	13	10	9.0	9.5	8.5	9.0	18	71	195	42	28	18
21	12	10	11	9.0	9.0	8.5	15	76	184	41	32	18
22	12	10	10	9.0	9.0	8.0	15	98	180	40	26	17
23	11	11	10	9.0	9.0	8.5	15	115	177	38	30	16
24	12	11	8.5	9.0	9.0	8.5	16	117	181	37	24	15
25	12	10	7.0	8.5	9.0	9.0	17	117	180	36	22	15
26	13	10	8.0	9.0	9.0	9.5	18	117	178	37	24	16
27	12	10	9.0	9.0	9.0	9.5	20	137	174	39	21	16
28	12	9.0	9.0	9.0	9.0	9.5	22	153	174	47	20	16
29	13	9.0	9.0	8.5	---	9.5	22	174	172	51	19	17
30	12	10	10	9.0	---	10	24	181	165	48	19	17
31	12	---	11	9.0	---	9.5	---	184	---	40	18	---
TOTAL	387	317.0	295.5	296.5	248.5	284.5	425.5	2791	5995	2180	861	561
MEAN	12.5	10.6	9.53	9.56	8.88	9.18	14.2	90.0	200	70.3	27.8	18.7
MAX	16	12	11	11	10	11	24	184	235	157	36	32
MIN	11	9.0	7.0	8.5	7.5	8.0	9.0	28	165	36	18	15
AC-FT	768	629	586	588	493	564	844	5540	11890	4320	1710	1110

CAL YR 1981 TOTAL 6126.8 MEAN 16.8 MAX 87 MIN 4.7 AC-FT 12150
WTR YR 1982 TOTAL 14642.5 MEAN 40.1 MAX 235 MIN 7.0 AC-FT 29040

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO MAY 5.

09063200 WEARYMAN CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'14", long 106°19'06", in SW¼SE¼ sec.15, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.4 mi (0.6 km) upstream from mouth and 2.5 mi (4.0 km) east of Red Cliff.

DRAINAGE AREA.--8.78 mi² (22.74 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,158 ft (2,791.4 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 8.13 ft³/s (0.230 m³/s), 5,890 acre-ft/yr (7.26 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 140 ft³/s (4.0 m³/s) June 18, 1965, gage height, 3.23 ft (0.985 m); minimum daily, 0.30 ft³/s (0.008 m³/s) Feb. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s (2.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 11	0100	78	2.21	3.31	1.009	June 29	0400	*111	3.14	3.30	1.006

Minimum daily discharge, 0.88 ft³/s (0.025 m³/s) Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.0	1.9	1.6	1.2	1.0	1.0	2.9	28	100	15	5.7
2	3.3	2.8	1.9	1.5	1.1	1.1	1.0	3.5	30	90	14	5.5
3	3.5	2.8	1.9	1.5	1.1	1.1	.90	4.2	31	86	14	5.3
4	3.5	2.8	2.0	1.5	1.1	1.1	.90	5.4	32	76	13	5.3
5	3.5	2.7	1.9	1.5	1.1	1.0	.90	5.7	38	72	12	5.9
6	3.5	2.7	1.9	1.7	1.0	.90	.90	5.4	41	69	12	5.6
7	3.3	2.6	1.9	1.6	1.1	1.0	.90	5.0	43	62	12	5.4
8	3.3	2.7	1.9	1.6	1.2	.90	.90	4.8	48	57	11	5.4
9	3.5	2.7	1.9	1.6	1.3	1.0	.90	5.0	56	50	11	5.3
10	3.5	2.5	1.9	1.6	1.3	1.0	.90	5.7	64	44	11	5.1
11	3.4	2.4	1.8	1.6	1.3	1.1	.90	6.4	73	40	11	5.6
12	3.4	2.2	1.8	1.6	1.3	1.2	1.1	6.8	65	37	11	6.0
13	3.5	2.2	1.8	1.6	1.2	1.1	1.3	6.8	65	34	11	5.8
14	3.3	2.4	1.7	1.6	1.2	1.1	1.4	6.4	65	32	10	5.5
15	3.4	2.4	1.7	1.6	1.1	1.1	1.5	6.1	60	29	9.3	5.2
16	3.5	2.3	1.7	1.5	1.1	1.1	1.7	5.7	55	26	8.8	4.9
17	3.3	2.3	1.7	1.5	1.1	1.1	1.8	6.1	60	26	8.6	4.8
18	3.3	2.3	1.4	1.5	1.0	1.0	1.6	5.7	75	25	8.4	4.7
19	3.2	2.3	1.6	1.5	1.0	1.0	1.7	6.1	70	24	8.6	4.7
20	3.4	2.2	1.8	1.3	1.0	.90	1.7	6.4	65	23	8.3	4.7
21	3.2	2.2	1.8	1.3	1.1	.88	1.6	6.8	60	21	7.9	4.6
22	3.4	2.2	1.7	1.3	1.1	.90	1.6	8.0	65	20	7.7	4.5
23	3.0	2.2	1.4	1.3	1.1	.90	1.7	9.4	55	20	7.5	4.5
24	3.1	2.2	1.2	1.3	1.0	1.0	1.7	12	70	19	7.4	4.4
25	3.0	2.2	1.4	1.3	1.0	1.0	1.7	12	70	18	7.3	4.2
26	3.0	2.1	1.5	1.3	1.0	1.0	1.9	13	70	18	6.9	4.2
27	2.8	[illegible]	1.6	1.3	1.1	1.0	1.9	14	75	18	6.7	4.0
28	3.0	1.7	1.5	1.3	1.1	1.0	2.0	19	92	18	6.4	4.2
29	3.2	2.0	1.5	1.2	---	1.0	2.1	22	105	17	6.3	4.2
30	3.1	2.0	1.7	1.3	---	1.0	2.4	24	106	17	6.2	4.5
31	3.0	---	1.7	1.3	---	.90	---	24	---	16	5.9	---
TOTAL	101.7	71.2	53.1	45.2	31.3	31.38	42.50	274.3	1842	1204	296.2	149.7
MEAN	3.28	2.37	1.71	1.46	1.12	1.01	1.42	8.85	61.4	38.8	9.55	4.99
MAX	3.5	3.0	2.0	1.7	1.3	1.2	2.4	24	106	100	15	6.0
MIN	2.8	1.9	1.2	1.2	1.0	.88	.90	2.9	28	16	5.9	4.0
AC-FT	202	141	105	90	62	62	84	544	3650	2390	588	297

CAL YR 1981 TOTAL 1812.10 MEAN 4.96 MAX 43 MIN 1.0 AC-FT 3590
WTR YR 1982 TOTAL 4142.58 MEAN 11.3 MAX 106 MIN .88 AC-FT 8220

NOTE.--No GAGE-HEIGHT RECORD NOV. 6 TO APR. 10.

09063400 TURKEY CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'22", long 106°20'08", in NW¼SW¼ sec.16, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 400 ft (120 m) downstream from Lime Creek, 1.9 mi (3.1 km) northeast of Red Cliff, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--23.9 mi² (61.9 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,885 ft (2,708 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 21.0 ft³/s (0.595 m³/s), 15,210 acre-ft/yr (18.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 515 ft³/s (14.6 m³/s) June 17, 1965, gage height, 3.03 ft (0.924 m), from rating curve extended above 230 ft³/s (6.5 m³/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 196 ft³/s (5.55 m³/s) at 2000 June 16, gage height, 2.46 ft (0.750 m), only peak above base of 160 ft³/s (4.5 m³/s); minimum daily, 2.0 ft³/s (0.057 m³/s) Dec. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.2	2.8	2.8	2.4	2.8	3.0	14	101	125	27	12
2	5.5	5.2	2.8	2.6	2.4	2.8	3.0	17	108	124	27	11
3	6.2	4.9	2.8	2.6	2.4	2.6	2.8	20	105	115	26	11
4	6.1	5.5	2.8	3.0	2.4	2.4	3.0	25	100	103	24	11
5	6.2	5.8	2.8	2.8	2.2	2.4	3.0	28	100	137	23	13
6	5.8	4.9	3.0	2.8	2.4	2.4	3.0	24	85	125	22	12
7	5.7	4.9	2.8	3.0	3.0	2.4	2.8	22	85	92	21	11
8	5.6	4.9	2.8	3.0	2.8	2.6	2.8	19	85	91	21	11
9	5.7	4.8	2.8	3.0	2.8	2.6	3.0	20	100	94	21	10
10	5.5	4.6	2.8	3.0	2.8	3.0	3.4	22	130	112	20	10
11	5.5	4.4	2.6	3.0	2.8	3.2	4.0	22	130	112	19	11
12	5.7	4.4	2.6	3.0	2.8	3.0	5.0	24	135	98	19	13
13	5.5	4.6	2.6	3.0	2.6	3.0	5.5	22	138	86	20	11
14	5.6	4.9	2.6	3.0	2.4	3.0	6.0	20	153	75	18	11
15	5.7	4.7	2.6	3.0	2.4	3.0	5.5	19	156	69	18	10
16	6.0	4.7	2.4	2.8	2.4	3.0	5.5	19	156	70	17	9.8
17	5.6	4.9	2.4	2.8	2.4	2.8	5.5	19	168	72	16	9.5
18	5.6	3.4	2.6	2.8	2.6	2.8	5.0	17	153	65	15	9.5
19	5.4	2.8	3.0	2.6	2.6	2.6	4.8	17	150	54	17	9.7
20	5.2	3.0	2.8	2.6	2.6	2.6	4.4	17	150	48	16	9.4
21	5.2	3.2	2.6	2.6	2.6	2.6	5.0	18	144	45	15	8.9
22	5.0	3.0	2.4	2.6	2.6	2.6	5.5	23	132	43	15	8.5
23	4.7	3.0	2.0	2.6	2.6	2.8	6.0	31	130	42	14	8.7
24	5.0	3.0	2.4	2.6	2.6	2.8	7.0	40	122	39	14	8.4
25	4.9	2.8	2.6	2.6	2.6	2.8	7.0	50	123	36	14	8.5
26	5.5	2.6	2.6	2.6	2.6	3.0	7.0	50	118	35	13	8.5
27	5.1	2.8	2.4	2.6	2.6	3.0	8.5	55	130	36	13	8.4
28	4.9	2.8	2.8	2.6	2.8	3.0	8.5	66	128	38	14	8.6
29	5.0	2.8	3.0	2.8	---	3.0	8.5	80	136	36	13	8.5
30	5.2	2.6	3.0	2.6	---	2.8	11	86	130	32	13	8.9
31	4.9	---	2.8	2.4	---	3.0	---	89	---	28	12	---
TOTAL	169.1	121.1	83.0	85.8	72.2	86.4	155.0	995	3781	2277	557	301.8
MEAN	5.45	4.04	2.68	2.77	2.58	2.79	5.17	32.1	126	73.5	18.0	10.1
MAX	6.2	5.8	3.0	3.0	3.0	3.2	11	89	168	137	27	13
MIN	4.7	2.6	2.0	2.4	2.2	2.4	2.8	14	85	28	12	8.4
AC-FT	335	240	165	170	143	171	307	1970	7500	4520	1100	599

CAL YR 1981 TOTAL 3973.6 MEAN 10.9 MAX 77 MIN 1.5 AC-FT 7880
WTR YR 1982 TOTAL 8684.4 MEAN 23.8 MAX 168 MIN 2.0 AC-FT 17230

NOTE.--NO GAGE-HEIGHT RECORD NOV. 28 TO APR. 20.

09063900 MISSOURI CREEK NEAR GOLD PARK, CO

LOCATION.--Lat 39°23'25", long 106°28'10", Eagle County, Hydrologic Unit 14010003, on left bank 50 ft (15 m) downstream from road culvert, 0.6 mi (1.0 km) upstream from Fancy Creek, 2.2 mi (3.5 km) southwest of Gold Park, and 10 mi (16 km) southwest of Red Cliff.

DRAINAGE AREA.--6.42 mi² (16.63 km²).

PERIOD OF RECORD.--August 1972 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,980 ft (3,042 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversion above station to Arkansas River basin through Homestake tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years, 6.52 ft³/s (0.185 m³/s) 4,720 acre-ft/yr (5.82 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300 ft³/s (8.50 m³/s) July 4, 1975, gage height, 3.19 ft (0.972 m), from rating curve extended above 35 ft³/s (1.0 m³/s); minimum daily, 0.24 ft³/s (0.007 m³/s) Feb. 12, 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100 ft³/s (2.83 m³/s) at 2000 June 28, gage height, 2.89 ft (0.881 m); minimum daily, 0.40 ft³/s (0.011 m³/s) Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.0	1.6	.70	1.0	1.1	.50	6.4	15	37	15	9.6
2	2.0	2.0	1.6	.70	1.0	1.1	.50	8.0	14	29	13	8.6
3	3.0	2.2	1.5	.70	1.0	.90	.50	10	11	24	11	7.5
4	3.1	2.2	1.4	.60	1.0	.90	.50	6.3	11	17	11	7.0
5	2.8	2.2	1.4	.70	1.0	.90	.50	6.5	16	11	10	9.9
6	2.0	2.2	1.4	.70	1.0	.80	.50	4.7	15	10	10	9.3
7	1.9	2.4	1.4	.70	1.0	.80	.40	2.6	15	8.1	10	7.8
8	1.8	2.2	1.4	.70	1.0	.80	.50	2.3	17	8.6	9.2	7.4
9	1.7	2.4	1.4	.70	1.0	.80	.60	3.1	20	8.4	9.9	7.5
10	1.7	2.4	1.4	.70	1.0	.90	.70	4.4	20	7.7	9.9	7.2
11	2.0	2.4	1.4	.70	1.0	.90	.90	5.0	20	7.7	8.9	8.4
12	1.8	2.4	1.4	.70	1.0	.80	1.1	4.8	23	8.5	8.5	14
13	2.0	2.4	1.5	.70	1.0	.80	1.2	3.4	23	9.5	9.2	13
14	2.2	2.4	1.5	.70	.90	.80	1.3	2.5	17	11	9.8	12
15	2.6	2.2	1.5	.70	.80	.70	1.5	2.1	13	8.0	9.7	12
16	2.8	2.0	1.4	.70	.80	.70	1.7	1.9	21	9.5	9.4	12
17	2.6	2.0	1.3	.70	.90	.70	1.8	1.8	34	13	8.3	11
18	2.2	1.8	1.5	.80	1.0	.70	1.8	2.0	50	12	7.4	9.0
19	2.2	1.8	1.6	.90	1.0	.60	1.8	3.6	20	11	19	8.6
20	2.2	1.9	1.5	.90	1.1	.60	1.8	8.2	19	11	29	9.2
21	2.2	2.0	1.4	.90	1.1	.60	1.8	8.3	25	10	22	8.6
22	2.0	1.9	.90	.90	1.1	.60	1.7	14	25	10	26	7.6
23	2.0	1.7	.90	.90	1.0	.60	1.8	19	32	14	29	7.0
24	1.9	1.6	.90	1.0	1.0	.60	1.9	15	43	20	21	6.4
25	1.9	1.4	.90	1.0	1.1	.60	1.9	8.4	36	22	19	5.9
26	1.9	1.6	.90	1.0	1.0	.60	2.5	9.0	30	21	20	6.1
27	2.0	1.7	.90	1.0	1.0	.60	2.5	12	42	21	17	5.8
28	2.0	1.7	.90	1.0	1.1	.60	2.6	15	55	30	15	6.4
29	2.2	1.6	.80	1.0	---	.60	3.7	15	51	32	14	6.4
30	2.2	1.5	.70	1.0	---	.50	4.1	13	45	22	12	6.8
31	2.0	---	.70	1.0	---	.50	---	13	---	17	11	---
TOTAL	56.9	60.2	39.00	25.10	27.90	22.70	44.60	231.3	778	481.0	434.2	258.0
MEAN	2.16	2.01	1.26	.81	1.00	.73	1.49	7.46	25.9	15.5	14.0	8.60
MAX	3.1	2.4	1.6	1.0	1.1	1.1	4.1	19	55	37	29	14
MIN	1.7	1.4	.70	.60	.80	.50	.40	1.8	11	7.7	7.4	5.8
AC-FT	133	119	77	50	55	45	88	459	1540	954	861	512

CAL YR 1981 TOTAL 1924.11 MEAN 5.27 MAX 61 MIN .46 AC-FT 3820
WTR YR 1982 TOTAL 2468.90 MEAN 6.76 MAX 55 MIN .40 AC-FT 4900

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 6.

09064000 HOMESTAKE CREEK AT GOLD PARK, CO

LOCATION.--Lat 39°24'20", long 106°25'58", Eagle County, Hydrologic Unit 14010003, on left bank at Gold Park, 400 ft (120 m) downstream from ford, 0.5 mi (0.8 km) downstream from French Creek, and 8 mi (13 km) southwest of Red Cliff.

DRAINAGE AREA.--36.1 mi^2 (93.5 km^2).

PERIOD OF RECORD.--October 1947 to September 1954, August 1972 to current year.

REVISED RECORDS.--WRD Colo. 1973: Drainage area at former site.

GAGE.--Water-stage recorder. Altitude of gage is 9,200 ft (2,804 m), from topographic map. Prior to Aug. 1, 1972, water-stage recorder at site 1,500 ft (460 m) upstream at datum 9,245 ft (2,817.9 m), National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Flow regulated by Homestake Lake, capacity, 44,360 acre-ft (54.7 hm^3) since June 7, 1966. Transmountain diversion above station to Arkansas River basin through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1948-54), 63.4 ft^3/s (1.795 m^3/s), 45,930 acre-ft/yr (56.6 hm^3/yr), prior to diversion through Homestake tunnel; 10 years (water years 1973-82), 22.1 ft^3/s (0.626 m^3/s), 16,010 acre-ft/yr (19.7 hm^3/yr), subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft^3/s (30.6 m^3/s) June 13, 1953, gage height, 6.84 ft (2.085 m), site and datum then in use, from rating curve extended above 700 ft^3/s (20 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 217 ft^3/s (6.15 m^3/s) at 2100 June 28, gage height, 4.99 ft (1.521 m), from rating curve extended above 110 ft^3/s (3.1 m^3/s), maximum gage height, 5.11 ft (1.558 m), at 0700 Apr. 15, (backwater from ice); minimum daily discharge, 2.8 ft^3/s (0.079 m^3/s) Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.0	7.5	3.8	5.5	6.0	3.4	48	79	77	33	27
2	11	9.5	7.5	3.8	5.5	6.0	3.2	60	75	65	39	24
3	13	10	7.5	3.8	6.0	6.5	3.0	69	67	53	33	21
4	13	9.5	7.5	3.8	6.0	5.5	3.4	62	60	45	30	20
5	15	10	7.5	3.6	6.0	5.0	3.4	55	73	32	29	33
6	15	10	7.0	3.4	6.0	5.0	3.2	33	72	31	28	31
7	14	11	7.0	3.4	6.0	5.0	2.8	21	66	25	28	24
8	14	11	6.5	3.4	6.0	4.8	3.0	20	71	25	26	22
9	14	11	6.5	3.6	6.0	4.6	3.8	28	75	26	27	23
10	14	11	6.5	3.8	5.5	4.4	4.6	35	78	24	27	21
11	13	12	6.5	3.8	5.5	5.0	5.5	35	72	23	26	24
12	14	11	7.0	3.8	5.5	5.5	6.0	30	78	23	36	46
13	13	11	7.0	3.8	5.5	5.0	8.0	22	77	24	41	45
14	13	11	7.5	3.8	5.5	4.8	10	17	62	25	46	44
15	14	9.7	7.5	3.8	5.0	4.8	11	15	45	22	42	40
16	13	9.5	7.5	3.8	5.0	4.4	13	15	54	22	40	40
17	12	9.5	7.0	3.8	4.6	4.2	14	15	81	25	41	33
18	11	9.5	6.5	3.8	4.6	4.2	14	21	124	24	38	29
19	10	9.0	7.0	4.0	5.0	4.0	13	35	72	23	63	29
20	10	8.5	8.0	4.0	5.5	4.0	12	50	61	23	86	29
21	9.5	9.0	8.0	4.4	6.0	3.6	11	52	67	22	73	28
22	9.0	9.0	6.5	4.6	6.0	3.6	12	76	66	21	76	25
23	9.0	8.5	4.8	4.6	6.5	3.6	12	86	74	25	85	24
24	8.5	8.5	4.6	4.8	6.0	3.4	11	78	89	32	63	22
25	8.5	8.0	4.6	5.0	5.5	3.6	12	62	88	34	61	20
26	8.5	7.0	4.6	5.0	6.0	3.8	14	65	77	34	70	21
27	9.0	7.5	4.4	5.5	6.0	3.8	13	84	87	34	54	21
28	9.5	8.5	4.4	5.5	6.0	3.8	15	92	120	47	46	23
29	9.5	8.5	4.6	5.5	---	3.8	20	90	111	53	44	23
30	10	7.5	4.4	5.5	---	3.6	30	80	91	38	36	24
31	9.0	---	4.0	5.5	---	3.4	---	77	---	31	30	---
TOTAL	357.0	284.7	197.4	130.7	158.2	138.7	290.3	1528	2312	1008	1397	836
MEAN	11.5	9.49	6.37	4.22	5.65	4.47	9.68	49.3	77.1	32.5	45.1	27.9
MAX	15	12	8.0	5.5	6.5	6.5	30	92	124	77	86	46
MIN	8.5	7.0	4.0	3.4	4.6	3.4	2.8	15	45	21	26	20
AC-FT	708	565	392	259	314	275	576	3030	4590	2000	2770	1660

CAL YR 1981 TOTAL 6155.1 MEAN 16.9 MAX 137 MIN 3.1 AC-FT 12210
WTR YR 1982 TOTAL 8638.0 MEAN 23.7 MAX 124 MIN 2.8 AC-FT 17130

NOTE.--NO GAGE-HEIGHT RECORD DEC. 12 TO APR. 5.

09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°28'24", long 106°22'02", in NE¼NE¼ sec.6, T.7 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank at downstream side of Forest Service road bridge, 2.4 mi (3.9 km) south of Red Cliff, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--58.3 mi² (151.0 km²).

PERIOD OF RECORD.--October 1910 to September 1918, May 1944 to current year. Published as "at Red Cliff" October 1910 to September 1916.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,783 ft (2,677.1 m) National Geodetic Vertical Datum of 1929 (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft or 54.7 hm³) since June 7, 1966. Transmountain diversions above station through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-18, 1945-66), 86.6 ft³/s (2.453 m³/s), 62,740 acre-ft/yr (77.4 hm³/yr), prior to diversion through Homestake tunnel; 16 years (water years 1967-82), 36.8 ft³/s (1.042 m³/s), 26,660 acre-ft/yr (32.9 hm³/yr), subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,300 ft³/s (36.8 m³/s) June 24, 1918, gage height, 6.2 ft (1.18 m), site and datum then in use; minimum observed, 0.60 ft³/s (0.017 m³/s) Jan. 25, 1915 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 266 ft³/s (7.53 m³/s) at 0100 June 29, gage height, 2.79 ft (0.850 m); minimum daily, 5.5 ft³/s (0.156 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	10	7.0	11	15	9.0	112	154	140	47	41
2	12	16	11	6.5	11	15	9.0	137	151	127	44	38
3	14	16	10	6.5	11	15	8.5	153	142	113	42	35
4	15	16	10	6.5	11	14	8.5	162	128	106	40	33
5	17	17	10	6.5	12	13	9.0	149	147	89	38	40
6	17	16	10	6.5	12	12	10	94	146	87	36	46
7	17	14	10	5.5	12	12	9.0	74	131	76	38	37
8	15	14	10	6.0	12	12	8.5	74	142	71	35	34
9	16	14	10	6.0	12	11	8.0	86	145	73	36	35
10	15	14	9.5	6.5	12	11	7.5	99	151	68	37	33
11	15	14	9.5	6.5	13	12	7.5	98	145	65	36	35
12	16	13	9.5	6.5	13	13	7.5	94	150	63	41	54
13	15	13	10	6.5	13	13	7.5	80	152	62	48	55
14	15	12	11	6.5	12	12	9.5	68	137	63	52	53
15	16	12	12	7.0	11	11	12	62	118	62	46	46
16	21	12	11	7.0	11	11	14	59	115	56	47	47
17	19	12	11	7.0	10	11	17	59	149	59	43	41
18	18	11	10	7.0	10	10	20	67	221	57	46	38
19	18	11	11	7.0	12	10	28	83	154	55	56	38
20	18	11	12	7.0	12	10	32	102	132	52	84	37
21	17	12	12	7.5	13	9.5	36	98	132	50	70	37
22	17	12	10	8.5	14	9.5	34	130	135	48	66	32
23	16	11	8.5	8.5	15	9.5	36	150	137	48	94	30
24	16	11	7.5	8.5	14	9.0	37	141	153	56	70	29
25	15	10	7.5	9.0	14	9.0	45	125	158	58	64	28
26	18	9.0	7.5	9.5	14	9.5	51	117	150	62	78	29
27	17	9.0	7.5	10	14	10	51	148	138	61	64	29
28	15	11	7.5	11	14	10	58	160	180	82	58	29
29	16	11	7.5	11	---	10	66	166	178	93	56	30
30	16	11	7.5	11	---	10	79	155	161	72	49	31
31	16	---	7.0	11	---	9.5	---	147	---	54	44	---
TOTAL	500	380.0	297.5	237.0	345	348.5	735.0	3449	4432	2228	1605	1120
MEAN	16.1	12.7	9.60	7.65	12.3	11.2	24.5	111	148	71.9	51.8	37.3
MAX	21	17	12	11	15	15	79	166	221	140	94	55
MIN	12	9.0	7.0	5.5	10	9.0	7.5	59	115	48	35	28
AC-FT	992	754	590	470	684	691	1460	6840	8790	4420	3180	2220

CAL YR 1981 TOTAL 8646.6 MEAN 23.7 MAX 157 MIN 2.9 AC-FT 17150
WTR YR 1982 TOTAL 15677.0 MEAN 43.0 MAX 221 MIN 5.5 AC-FT 31100

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO APR. 23.

09065100 CROSS CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°34'05", long 106°24'45", in SW¼ sec.36, T.5 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.4 mi (0.6 km) upstream from mouth and 1.5 mi (2.4 km) southeast of Minturn.

DRAINAGE AREA.--33.5 mi^2 (86.8 km^2).

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

REVISED RECORDS.--WDR-CO-81-2: 1980 (M).

GAGE.--Water-stage recorder. Altitude of gage is 7,990 ft (2,435 m), from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Bolts ditch exports water from above station to tailings ponds and recreation lake along Eagle River. Diversion (0.2 mi (0.3 km) above station for water supply of school and for municipal supply of Minturn. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 50.6 ft^3/s (1.433 m^3/s), 36,660 acre-ft/yr (45.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 754 ft^3/s (21.4 m^3/s) June 30, 1957, gage height, 5.45 ft (1.661 m); maximum gage height, 5.54 ft (1.689 m) July 18, 1957; minimum daily discharge, 0.1 ft^3/s (0.003 m^3/s) Dec. 27-31, 1962, Jan. 6-8, 11-15, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 625 ft^3/s (17.7 m^3/s) at 0500 June 29, gage height, 5.10 ft (1.554 m), only peak above base of 400 ft^3/s (11 m^3/s); minimum daily, 3.6 ft^3/s (0.10 m^3/s) Jan. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	7.5	4.2	7.0	4.2	6.0	65	188	400	118	28
2	15	15	8.0	4.2	7.0	4.4	6.0	84	183	372	105	25
3	18	15	8.0	4.2	7.0	4.8	6.0	104	160	314	95	23
4	21	15	7.5	4.2	7.0	5.3	6.0	123	130	316	88	21
5	24	15	7.5	4.4	7.0	5.6	6.0	123	174	228	79	29
6	23	15	7.5	3.6	7.0	5.7	6.3	80	196	237	73	42
7	22	13	7.5	3.8	7.0	5.1	6.5	63	185	182	73	32
8	22	12	7.5	4.0	7.0	5.3	7.0	60	224	175	70	29
9	23	11	7.0	4.0	7.0	4.7	7.5	71	227	206	82	29
10	20	11	7.0	4.2	7.0	4.4	8.0	76	260	163	80	25
11	19	11	7.0	4.4	7.0	4.3	8.2	78	225	191	76	25
12	21	11	7.0	4.4	7.0	6.1	12	73	222	193	68	45
13	20	11	7.5	4.4	7.0	6.7	20	65	254	222	71	45
14	21	10	8.0	4.4	7.0	5.5	27	52	219	205	92	44
15	21	10	8.0	4.4	7.0	5.7	29	44	189	207	81	36
16	24	9.7	8.0	4.4	6.6	5.5	30	39	176	187	63	36
17	21	9.5	7.5	4.4	6.5	5.7	34	39	298	185	57	34
18	20	9.0	7.0	4.4	5.9	5.5	28	47	319	180	54	32
19	19	8.5	8.0	4.4	5.9	5.5	25	59	190	161	68	32
20	19	9.0	8.5	4.8	5.3	5.5	22	66	142	167	61	31
21	18	9.5	8.5	5.5	5.2	5.0	24	62	194	162	55	30
22	16	9.0	8.0	5.5	5.3	5.0	18	87	221	154	51	27
23	14	8.8	6.0	5.5	5.5	5.0	19	108	237	161	49	25
24	15	8.5	5.0	5.5	5.0	4.8	21	106	299	145	44	23
25	13	8.0	5.0	5.5	4.4	4.8	25	97	303	132	41	21
26	13	7.0	5.0	6.0	4.3	5.0	29	91	285	137	57	22
27	13	8.0	5.0	6.5	4.3	5.4	31	141	276	138	45	23
28	14	8.5	5.0	7.0	4.2	5.7	32	171	492	210	40	23
29	15	8.5	5.0	7.0	---	6.0	36	189	518	264	37	23
30	14	8.0	5.0	7.0	---	6.0	43	193	423	189	34	23
31	14	---	4.8	7.0	---	6.0	---	172	---	138	30	---
TOTAL	568	319.5	213.8	153.2	173.4	164.2	578.5	2828	7409	6321	2037	883
MEAN	18.3	10.7	6.90	4.94	6.19	5.30	19.3	91.2	247	204	65.7	29.4
MAX	24	15	8.5	7.0	7.0	6.7	43	193	518	400	118	45
MIN	13	7.0	4.8	3.6	4.2	4.2	6.0	39	130	132	30	21
AC-FT	1130	634	424	304	344	326	1150	5610	14700	12540	4040	1750

CAL YR 1981 TOTAL 15223.3 MEAN 41.7 MAX 476 MIN 1.1 AC-FT 30200
WTR YR 1982 TOTAL 21648.6 MEAN 59.3 MAX 518 MIN 3.6 AC-FT 42940

NOTE.--NO GAGE-HEIGHT RECORD DEC. 31 TO FEB. 7.

09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO

LOCATION.--Lat 39°37'33", long 106°16'39", in NE¼NW¼ sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 10 ft (3.0 m) downstream from bridge pier on Interstate 70, 0.2 mi (0.3 km) upstream from Black Gore Creek, 4.4 mi (7.1 km) east of Vail, and 8.4 mi (13.5 km) northeast of Minturn.

DRAINAGE AREA.--14.3 mi² (37.0 km²).

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft (2,621 m), from topographic map. Oct. 1, 1947 to Sept. 30, 1956, Oct. 1, 1963 to Sept. 30, 1980, at various sites about 1200 ft (366 m) upstream at different datums. See WDR-CO-80-2 for history of changes prior to Oct. 1, 1980.

REMARKS.--Records poor except for August and September, which are good. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 29.0 ft³/s (0.821 m³/s), 21,010 acre-ft/yr (25.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 588 ft³/s (16.7 m³/s) June 10, 1952, gage height, 6.58 ft (2.006 m), datum then in use, from rating curve extended above 260 ft³/s (7.4 m³/s); maximum gage height, 6.65 ft (2.027 m), June 18, 1951, datum then in use; minimum daily discharge, 1.2 ft³/s (0.034 m³/s) Mar. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 450 ft³/s (12.7 m³/s) at 2030 June 28, gage height, 2.08 ft (0.634 m), only peak above base of 200 ft³/s (5.7 m³/s); minimum daily, 3.0 ft³/s (0.085 m³/s) Feb. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.0	4.0	4.5	3.5	5.4	8.2	23	96	224	38	16
2	12	9.0	4.0	4.5	3.5	5.4	8.2	27	98	214	34	16
3	12	9.0	4.0	4.5	3.3	5.4	8.2	31	100	208	34	15
4	11	8.6	4.0	4.5	3.0	5.4	8.2	35	106	227	30	15
5	11	9.0	4.0	4.5	3.0	5.4	8.2	41	114	168	27	17
6	11	7.8	4.3	4.0	3.1	5.4	8.2	35	120	149	27	20
7	11	6.8	4.6	3.5	3.5	5.4	8.2	30	130	134	26	17
8	11	6.0	4.6	3.5	4.0	5.4	8.2	34	140	130	24	16
9	11	6.4	5.0	3.5	4.5	5.4	8.2	38	158	142	27	16
10	10	7.0	5.0	3.5	5.4	5.4	8.2	45	177	125	26	15
11	9.5	7.0	5.0	3.5	5.4	5.4	8.2	42	166	116	24	17
12	10	7.0	5.0	3.5	5.4	5.4	8.2	39	158	105	23	27
13	11	7.0	5.0	3.5	5.4	5.4	8.2	35	147	112	27	23
14	11	6.0	5.0	3.5	5.4	5.4	8.2	32	137	110	29	24
15	11	5.5	5.0	3.5	5.4	5.6	8.2	28	127	97	27	22
16	11	5.0	5.0	3.5	5.4	6.0	8.5	28	148	81	24	21
17	11	4.4	5.0	3.5	5.4	6.2	8.9	29	238	86	22	20
18	11	4.0	5.0	3.5	5.4	6.4	9.4	29	221	85	21	19
19	10	4.0	5.0	3.5	5.4	6.4	9.8	30	183	76	24	18
20	10	4.0	5.0	3.5	5.4	6.4	10	30	174	75	24	18
21	10	4.0	5.0	3.5	5.4	6.4	10	32	208	65	25	16
22	9.5	4.0	5.0	3.5	5.4	6.4	10	36	231	55	23	16
23	8.6	4.0	5.0	3.5	5.4	6.8	10	42	208	51	20	16
24	8.2	4.0	5.0	3.5	5.4	7.2	10	49	241	57	18	16
25	8.6	4.0	5.0	3.5	5.4	7.5	10	58	245	54	19	14
26	11	4.0	4.7	3.5	5.4	7.6	11	68	208	46	21	15
27	9.9	4.0	4.5	3.5	5.4	7.6	13	80	214	52	18	15
28	9.0	4.0	4.5	3.5	5.4	7.6	15	88	302	64	18	14
29	9.0	4.0	4.5	3.5	---	7.6	17	90	248	54	19	15
30	8.2	4.0	4.5	3.5	---	7.6	20	94	208	47	18	17
31	8.6	---	4.5	3.5	---	8.0	---	96	---	43	16	---
TOTAL	319.1	172.5	145.7	114.0	134.0	192.9	295.6	1394	5251	3252	753	526
MEAN	10.3	5.75	4.70	3.68	4.79	6.22	9.85	45.0	175	105	24.3	17.5
MAX	13	9.0	5.0	4.5	5.4	8.0	20	96	302	227	38	27
MIN	8.2	4.0	4.0	3.5	3.0	5.4	8.2	23	96	43	16	14
AC-FT	633	342	289	226	266	383	586	2760	10420	6450	1490	1040

CAL YR 1981 TOTAL 7943.6 MEAN 21.8 MAX 366 MIN 2.4 AC-FT 15760
WTR YR 1982 TOTAL 12549.8 MEAN 34.4 MAX 302 MIN 3.0 AC-FT 24890

NOTE.--NO GAGE-HEIGHT RECORD FROM NOV. 6 TO JUNE 8.

09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", Eagle County, Hydrologic Unit 14010003, on right bank 200 ft (61 m) from U.S. Highway 6, 0.3 mi (0.5 km) upstream from Timber Creek, 2.5 mi (4.0 km) upstream from mouth, and 9 mi (14 km) east of Minturn.

DRAINAGE AREA.--11.8 mi^2 (30.6 km^2).

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,150 ft (2,789 m), from topographic map. Prior to October 1963, at site 15 ft (5 m) upstream at present datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No diversion above station. Natural regulation by two small recreation lakes above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 16.6 ft^3/s (0.470 m^3/s), 12,030 acre-ft/yr (14.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft^3/s (10.3 m^3/s) June 7, 1952, gage height, 5.42 ft (1.652 m); maximum gage height, 6.00 ft (1.829 m) Mar. 30, 1968 (backwater from ice); minimum daily discharge, 0.90 ft^3/s (0.025 m^3/s) Feb. 22, 1968, Jan. 30, 1970, Feb. 4 to Mar. 6, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 179 ft^3/s (5.07 m^3/s) at 2100 June 9, gage height, 3.80 ft (1.158 m), only peak above base of 150 ft^3/s (4.2 m^3/s); minimum daily, 2.4 ft^3/s (0.068 m^3/s) Feb. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	3.6	2.9	4.2	3.5	3.0	4.5	21	108	93	15	4.8
2	3.2	3.5	3.0	4.2	3.1	3.0	4.5	35	104	86	13	4.6
3	3.7	3.7	3.0	4.2	2.7	3.0	4.5	41	102	78	13	4.4
4	3.7	3.6	3.0	4.2	2.4	3.0	4.5	45	98	72	12	4.4
5	3.8	3.9	3.1	4.2	2.4	3.0	4.5	42	122	65	12	5.2
6	3.6	3.6	3.3	4.2	2.7	3.0	4.5	32	126	63	11	5.1
7	3.4	3.4	3.7	4.2	2.8	3.0	4.5	30	130	56	10	4.7
8	3.6	3.2	4.0	4.2	3.0	3.0	4.5	30	142	53	9.4	4.7
9	3.7	3.4	4.2	4.2	3.0	3.0	4.5	34	142	51	11	4.7
10	3.5	3.4	4.1	4.2	3.0	3.0	4.6	42	142	47	9.2	4.6
11	3.6	3.4	4.1	4.2	3.0	3.0	4.9	44	134	44	8.7	6.4
12	3.7	3.4	4.1	4.2	3.0	3.0	5.5	41	136	41	10	6.9
13	3.4	3.4	4.1	4.1	3.0	3.0	5.8	37	132	38	10	6.4
14	3.4	3.2	4.1	3.9	3.0	3.1	6.4	31	126	35	10	6.0
15	3.5	3.0	4.1	3.7	3.0	3.2	7.0	28	118	33	8.4	5.4
16	3.7	2.9	4.1	3.7	3.0	3.4	7.5	26	118	31	7.6	5.1
17	3.6	2.8	4.1	3.6	3.0	3.5	8.0	26	132	29	7.1	4.7
18	3.6	2.5	4.1	3.6	3.0	3.5	8.6	28	138	28	7.4	4.8
19	3.5	2.5	4.1	3.6	3.0	3.5	9.0	28	122	25	9.2	4.8
20	3.4	2.5	4.1	3.6	3.0	3.5	9.2	29	118	24	7.4	4.7
21	3.4	2.5	4.2	3.6	3.0	3.5	9.4	32	120	22	6.9	4.7
22	3.4	2.5	4.2	3.6	3.0	3.5	9.4	41	122	21	6.3	4.6
23	3.3	2.5	4.1	3.6	3.0	3.5	9.4	52	120	20	6.2	4.7
24	3.1	2.5	4.0	3.6	3.0	3.6	9.4	59	120	19	5.8	4.4
25	3.5	2.6	4.0	3.6	3.0	4.0	9.5	58	120	18	6.0	4.4
26	4.0	2.7	4.0	3.5	3.0	4.0	9.8	60	118	18	5.8	4.6
27	3.7	2.7	4.0	3.5	3.0	4.0	11	77	114	20	5.4	4.4
28	3.5	2.7	4.0	3.5	3.0	4.0	12	86	112	20	5.6	4.8
29	3.4	2.8	4.2	3.5	---	4.0	14	100	108	20	5.4	4.7
30	3.4	2.8	4.2	3.5	---	4.0	17	95	102	18	5.1	4.8
31	3.4	---	4.2	3.5	---	4.1	---	97	---	21	4.9	---
TOTAL	108.9	91.2	120.4	119.2	82.6	104.9	227.9	1427	3646	1209	264.8	148.5
MEAN	3.51	3.04	3.88	3.85	2.95	3.38	7.60	46.0	122	39.0	8.54	4.95
MAX	4.0	3.9	4.2	4.2	3.5	4.1	17	100	142	93	15	6.9
MIN	3.1	2.5	2.9	3.5	2.4	3.0	4.5	21	98	18	4.9	4.4
AC-FT	216	181	239	236	164	208	452	2830	7230	2400	525	295

CAL YR 1981 TOTAL 3716.0 MEAN 10.2 MAX 85 MIN 1.0 AC-FT 7370
WTR YR 1982 TOTAL 7550.4 MEAN 20.7 MAX 142 MIN 2.4 AC-FT 14980

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO MAY 2.

09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N½ sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi (0.5 km) upstream from U.S. Highway 6, 0.4 mi (0.6 km) upstream from mouth, 4.5 mi (7.2 km) east of Vail, and 8.5 mi (13.7 km) northeast of Minturn.

DRAINAGE AREA.--4.37 mi² (11.32 km²).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,625 ft (2,629 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 9.10 ft³/s (0.258 m³/s), 6,590 acre-ft/yr (8.13 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s (6.37 m³/s) June 10, 1973, gage height, 3.82 ft (1.164 m), from rating curve extended above 82 ft³/s (2.3 m³/s); minimum daily determined, 0.10 ft³/s (0.003 m³/s) Feb. 8, 1967, Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 96 ft³/s (2.72 m³/s) at 1945 June 28, gage height, 3.48 ft (1.061 m), only peak above base of 50 ft³/s (1.4 m³/s); minimum daily, 0.60 ft³/s (0.017 m³/s) Feb. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.0	1.2	.70	.66	1.2	1.2	13	51	56	16	8.4
2	3.8	4.1	1.2	.70	.60	1.2	1.2	18	47	55	16	7.8
3	4.3	4.0	1.2	.70	.60	1.2	1.2	23	41	50	15	6.6
4	4.8	3.8	1.1	.70	.62	1.2	1.2	25	38	44	14	6.4
5	5.0	4.0	1.0	.70	.66	1.2	1.2	23	44	37	13	7.8
6	5.2	4.0	.98	.70	.70	1.2	1.2	17	45	35	13	6.9
7	5.2	4.1	.94	.70	.75	1.2	1.2	14	46	34	13	6.4
8	5.2	4.0	.90	.70	.80	1.2	1.3	13	47	34	11	6.4
9	5.2	4.0	.90	.70	.80	1.2	1.4	14	45	33	14	6.1
10	5.0	4.0	.90	.70	.80	1.2	1.5	16	47	30	12	5.7
11	5.0	4.5	.90	.70	.84	1.2	1.6	15	47	29	11	7.2
12	5.4	4.5	.90	.70	.86	1.2	1.7	15	48	30	13	8.7
13	5.4	4.3	.90	.70	.88	1.2	1.9	13	46	30	13	8.1
14	5.7	4.0	.90	.70	.90	1.2	2.0	11	44	32	15	7.2
15	5.4	3.2	.90	.70	.90	1.2	2.4	11	41	30	13	7.2
16	5.7	3.1	.86	.70	.94	1.2	2.8	10	42	27	12	7.2
17	5.7	3.1	.84	.70	.98	1.2	3.3	11	46	27	12	6.6
18	5.4	2.9	.82	.70	1.0	1.2	3.8	13	48	26	11	6.4
19	5.4	2.9	.80	.70	1.1	1.2	4.3	16	44	25	12	6.1
20	5.7	2.6	.78	.70	1.2	1.2	4.8	16	44	22	11	5.7
21	5.7	2.3	.76	.70	1.2	1.2	5.0	17	47	21	10	5.2
22	5.4	2.1	.72	.70	1.2	1.2	5.0	23	47	20	10	4.8
23	4.8	1.9	.70	.70	1.2	1.2	5.1	30	51	19	9.0	5.0
24	4.5	1.7	.70	.70	1.2	1.2	5.2	30	62	20	9.0	4.5
25	4.8	1.5	.70	.70	1.2	1.2	5.2	27	62	20	8.7	4.3
26	5.0	1.4	.70	.70	1.2	1.2	5.6	26	51	17	9.0	4.3
27	4.5	1.3	.70	.70	1.2	1.2	6.0	34	50	19	8.1	4.1
28	4.3	1.2	.70	.70	1.2	1.2	6.9	45	73	20	8.7	4.1
29	4.3	1.2	.70	.70	---	1.2	7.8	51	66	19	9.3	4.0
30	4.3	1.2	.70	.70	---	1.2	8.4	48	55	17	9.0	3.7
31	4.1	---	.70	.70	---	1.2	---	45	---	17	8.4	---
TOTAL	154.2	90.9	26.70	21.70	26.19	37.2	101.4	683	1465	895	359.2	182.9
MEAN	4.97	3.03	.86	.70	.94	1.20	3.38	22.0	48.8	28.9	11.6	6.10
MAX	5.7	4.5	1.2	.70	1.2	1.2	8.4	51	73	56	16	8.7
MIN	3.8	1.2	.70	.70	.60	1.2	1.2	10	38	17	8.1	3.7
AC-FT	306	180	53	43	52	74	201	1350	2910	1780	712	363

CAL YR 1981 TOTAL 3612.00 MEAN 9.90 MAX 125 MIN .20 AC-FT 7160
WTR YR 1982 TOTAL 4043.39 MEAN 11.1 MAX 73 MIN .60 AC-FT 8020

NOTE.--NO GAGE-HEIGHT RECORD NOV. 19 TO APR. 27.

EAGLE RIVER BASIN

09066150 PITKIN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'37", long 106°18'07", in SW¼SW¼ sec.1, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft (30 m) downstream from Pitkin ditch headgate, 1,000 ft (300 m) upstream from U.S. Highway 6, 1,200 ft (370 m) upstream from mouth, 4.0 mi (6.4 km) east of Vail, and 8 mi (13 km) northeast of Minturn.

DRAINAGE AREA.--5.39 mi² (13.96 km²).

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements water years 1964-66. October 1966 to current year.

REVISED RECORDS.--WRD Colo. 1971: 1967-70.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,525 ft (2,598 m), from topographic map. Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at datum 0.98 ft (0.299 m) lower.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions above station by Pitkin ditch for irrigation downstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 11.1 ft³/s (0.314 m³/s), 8,040 acre-ft/yr (9.91 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 221 ft³/s (6.26 m³/s) June 15, 1978, gage height, 2.55 ft (0.777 m); maximum gage height, 2.79 ft (0.850 m) June 20, 1968; minimum daily discharge, 0.24 ft³/s (0.007 m³/s) Oct. 29 to Nov. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98 ft³/s (2.78 m³/s) at 2100 June 28, gage height, 2.58 ft (0.786 m), only peak above base of 60 ft³/s (1.7 m³/s); minimum daily, 1.3 ft³/s (0.037 m³/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	5.0	2.7	2.5	2.2	1.6	1.6	10	52	77	33	12
2	4.6	5.0	2.7	2.5	2.0	1.6	1.6	11	50	74	35	11
3	5.0	5.4	2.7	2.5	1.8	1.6	1.6	12	44	74	30	11
4	5.4	5.4	2.7	2.5	1.6	1.6	1.6	14	35	71	28	9.3
5	6.4	5.4	2.7	2.5	1.3	1.6	1.6	15	48	63	23	8.6
6	6.4	5.0	2.7	2.5	1.4	1.6	1.6	15	52	59	22	8.6
7	6.9	5.4	2.7	2.5	1.6	1.6	1.6	14	52	56	23	8.6
8	7.4	5.4	2.7	2.5	1.6	1.6	1.6	13	56	54	21	8.0
9	7.4	5.0	2.7	2.5	1.6	1.6	1.6	13	56	54	22	8.0
10	6.9	4.2	2.7	2.5	1.6	1.6	2.0	14	63	48	22	8.0
11	6.9	3.9	2.7	2.5	1.6	1.6	2.2	15	61	48	19	8.0
12	7.4	4.2	2.7	2.5	1.6	1.6	2.5	16	69	52	23	7.4
13	7.4	4.2	2.7	2.5	1.6	1.6	2.8	17	66	52	26	7.4
14	7.4	4.2	2.7	2.5	1.6	1.6	3.1	16	59	54	31	7.4
15	7.4	3.9	2.7	2.5	1.6	1.6	3.5	15	50	50	26	7.4
16	7.4	3.9	2.7	2.5	1.6	1.6	4.0	14	56	46	21	6.9
17	7.4	3.3	2.7	2.5	1.6	1.6	4.5	14	69	46	18	6.9
18	6.9	3.2	2.7	2.5	1.6	1.6	5.0	14	71	46	19	6.9
19	7.4	3.1	2.7	2.5	1.6	1.6	5.6	15	61	44	21	6.9
20	8.0	3.0	2.7	2.5	1.6	1.6	6.2	16	61	41	19	6.4
21	7.4	2.8	2.7	2.5	1.6	1.6	6.4	18	69	40	18	6.4
22	6.9	2.7	2.7	2.5	1.6	1.6	6.5	20	71	38	17	6.4
23	6.9	2.7	2.7	2.5	1.6	1.6	6.6	22	69	38	16	6.4
24	5.9	2.7	2.7	2.5	1.6	1.6	6.8	24	69	40	16	5.9
25	6.4	2.7	2.7	2.5	1.6	1.6	6.8	26	69	38	16	5.9
26	5.9	2.7	2.7	2.5	1.6	1.6	6.9	28	69	35	16	5.9
27	5.9	2.7	2.7	2.5	1.6	1.6	7.0	30	66	35	16	5.9
28	5.4	2.7	2.6	2.5	1.6	1.6	7.2	35	71	41	14	5.4
29	5.4	2.7	2.5	2.5	---	1.6	8.0	52	77	44	13	5.4
30	5.4	2.7	2.5	2.5	---	1.6	9.0	52	80	33	14	5.4
31	5.4	---	2.5	2.3	---	1.6	---	48	---	35	13	---
TOTAL	201.9	115.2	83.0	77.3	45.5	49.6	127.0	638	1841	1526	651	223.7
MEAN	6.51	3.84	2.68	2.49	1.63	1.60	4.23	20.6	61.4	49.2	21.0	7.46
MAX	8.0	5.4	2.7	2.5	2.2	1.6	9.0	52	80	77	35	12
MIN	4.6	2.7	2.5	2.3	1.3	1.6	1.6	10	35	33	13	5.4
AC-FT	400	228	165	153	90	98	252	1270	3650	3030	1290	444

CAL YR 1981 TOTAL 3311.30 MEAN 9.07 MAX 83 MIN .40 AC-FT 6570
WTR YR 1982 TOTAL 5579.20 MEAN 15.3 MAX 80 MIN 1.3 AC-FT 11070

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO MAY 26.

09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°39'02", long 106°19'16", at west line of sec.2, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.2 mi (0.3 km) upstream from U.S. Highway 6, 0.4 mi (0.6 km) upstream from mouth, 3.0 mi (4.8 km) northeast of Vail, and 7.0 mi (11.3 km) northeast of Minturn.

DRAINAGE AREA.--6.03 mi^2 (15.62 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,413 ft (2,564 m), from topographic map.

REMARKS.--Records poor except those for October, August and September, which are fair. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 11.9 ft^3/s (0.337 m^3/s), 8,620 acre-ft/yr (10.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355 ft^3/s (10.1 m^3/s) June 15, 1978, gage height, 4.07 ft (1.241 m); maximum gage height, 4.29 ft (1.308 m) July 4, 1975 (backwater from debris); minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Feb. 8, 1967, Jan. 29, 1970, Feb. 10, 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 210 ft^3/s (5.95 m^3/s) at 1315 June 27, gage height, 3.82 ft (1.164 m), only peak above base of 80 ft^3/s (2.3 m^3/s); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	3.4	2.0	1.9	1.6	1.2	1.4	12	80	107	16	6.0
2	4.6	3.4	2.0	1.9	1.6	1.2	1.4	15	86	88	15	5.3
3	4.6	3.3	2.0	1.8	1.4	1.2	1.4	15	88	80	14	5.0
4	4.3	3.3	2.0	1.8	1.2	1.2	1.5	17	92	62	13	5.0
5	4.8	3.5	2.0	1.7	1.0	1.2	1.5	15	100	62	12	6.2
6	4.8	3.8	2.0	1.7	1.1	1.2	1.5	14	110	58	12	6.0
7	5.1	3.8	2.0	1.6	1.2	1.2	1.5	13	120	56	12	5.4
8	5.3	3.8	2.0	1.6	1.2	1.2	1.5	13	125	56	12	5.4
9	5.4	3.3	2.0	1.6	1.2	1.2	1.5	15	86	54	13	5.4
10	5.3	2.7	2.0	1.6	1.2	1.2	1.5	17	125	52	12	5.4
11	5.3	2.5	2.0	1.6	1.2	1.2	1.6	19	142	52	12	6.7
12	5.4	2.2	2.0	1.6	1.2	1.2	1.8	18	123	50	12	9.1
13	5.4	2.2	2.0	1.6	1.2	1.2	2.0	17	128	48	14	9.1
14	5.6	2.2	2.0	1.6	1.2	1.2	2.2	15	140	44	15	9.1
15	5.6	2.6	2.0	1.6	1.2	1.2	2.5	15	107	36	13	8.5
16	5.6	2.5	2.0	1.6	1.2	1.3	2.9	16	112	32	12	9.1
17	5.4	2.0	2.0	1.6	1.2	1.3	3.2	18	123	32	12	8.5
18	5.3	1.7	2.0	1.6	1.2	1.4	3.6	19	142	32	12	7.3
19	4.8	1.7	2.0	1.6	1.2	1.4	4.0	20	128	32	12	7.5
20	4.5	1.7	2.0	1.6	1.2	1.4	4.5	22	130	30	11	6.9
21	4.3	1.7	2.0	1.6	1.2	1.4	4.8	25	142	27	10	6.2
22	3.8	1.7	2.0	1.6	1.2	1.4	5.0	28	145	28	10	6.0
23	3.4	1.8	2.0	1.6	1.2	1.4	5.2	31	148	27	9.6	6.6
24	3.0	1.9	2.0	1.6	1.2	1.4	5.4	35	152	26	9.4	5.4
25	3.0	1.9	2.0	1.6	1.2	1.4	5.6	40	158	27	9.2	5.1
26	3.0	2.0	2.0	1.6	1.2	1.4	5.8	45	148	26	9.0	5.3
27	3.4	2.0	2.0	1.6	1.2	1.4	6.0	50	148	25	9.0	5.1
28	3.4	2.0	2.0	1.6	1.2	1.4	7.1	56	148	26	8.9	5.1
29	3.4	2.0	2.0	1.6	---	1.4	8.1	60	105	26	8.1	4.6
30	3.2	2.0	2.0	1.6	---	1.4	8.3	70	121	20	7.7	4.6
31	3.2	---	2.0	1.6	---	1.4	---	76	---	18	6.6	---
TOTAL	138.5	74.6	62.0	50.8	34.3	40.2	104.3	841	3702	1339	353.5	190.9
MEAN	4.47	2.49	2.00	1.64	1.23	1.30	3.48	27.1	123	43.2	11.4	6.36
MAX	5.6	3.3	2.0	1.9	1.6	1.4	8.3	76	158	107	16	9.1
MIN	3.0	1.7	2.0	1.6	1.0	1.2	1.4	12	80	18	6.6	4.6
AC-FT	275	148	123	101	68	80	207	1670	7340	2660	701	379

CAL YR 1981 TOTAL 4188.90 MEAN 11.5 MAX 180 MIN .20 AC-FT 8310
WTR YR 1982 TOTAL 6931.10 MEAN 19.0 MAX 158 MIN 1.0 AC-FT 13750

NOTE.--NO GAGE-HEIGHT RECORD NOV. 18 TO APR. 28.

09066300 MIDDLE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'45", long 106°22'54", in sec.6, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 200 ft (61 m) upstream from Interstate Highway 70, 0.2 mi (0.3 km) upstream from mouth, and 5.0 mi (8.0 km) northeast of Minturn.

DRAINAGE AREA.--5.97 mi² (15.46 km²).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,200 ft (2,499 m), from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 5.69 ft³/s (0.161 m³/s), 4,120 acre-ft/yr (5.08 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 116 ft³/s (3.29 m³/s) June 20, 1974, gage height, 2.65 ft (0.808 m) datum then in use; maximum gage height, 3.23 ft (0.985 m) datum then in use, July 4, 1975 (backwater from debris); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 70 ft³/s (1.98 m³/s) at 2100 June 28, gage height, 2.97 ft (0.905 m), only peak above base of 60 ft³/s (1.7 m³/s); minimum daily, 0.20 ft³/s (0.006 m³/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.82	.40	.40	.40	.60	.60	4.2	28	59	7.8	2.5
2	.54	.82	.40	.40	.40	.60	.60	4.7	28	60	7.6	2.1
3	.88	.82	.40	.40	.30	.60	.60	6.4	29	57	7.1	2.1
4	1.3	.82	.40	.40	.25	.60	.60	7.1	30	52	6.4	2.1
5	1.6	.82	.40	.40	.20	.60	.60	7.6	34	49	6.2	3.0
6	1.1	.82	.40	.40	.30	.60	.60	7.3	37	45	5.8	2.5
7	.88	.80	.40	.40	.30	.60	.60	7.1	40	40	5.3	2.2
8	.88	.80	.40	.40	.40	.60	.60	6.8	43	37	4.9	2.0
9	.88	.80	.40	.40	.40	.60	.60	6.8	42	37	5.8	2.4
10	.71	.80	.40	.40	.50	.60	.80	8.1	43	34	5.5	2.1
11	.82	.80	.40	.40	.60	.60	.90	8.1	44	33	5.1	2.4
12	1.1	.80	.40	.40	.60	.60	1.0	8.6	47	32	4.9	3.8
13	1.0	.80	.40	.40	.60	.60	1.2	8.4	46	32	5.8	3.2
14	1.2	.80	.40	.40	.60	.60	1.4	8.4	44	32	6.8	3.0
15	1.2	.70	.40	.40	.60	.60	1.6	7.8	40	30	5.3	3.0
16	1.2	.70	.40	.40	.60	.60	1.8	7.6	40	27	4.9	2.9
17	1.1	.60	.40	.40	.60	.60	2.0	7.1	43	26	4.7	2.5
18	1.0	.50	.40	.40	.60	.60	2.1	6.8	48	24	4.5	2.1
19	.97	.50	.40	.40	.60	.60	2.2	6.6	45	22	4.4	2.2
20	.88	.40	.40	.40	.60	.60	2.3	6.6	45	20	4.2	2.1
21	.97	.40	.40	.40	.60	.60	2.4	7.1	44	18	4.0	2.0
22	.82	.40	.40	.40	.60	.60	2.4	9.1	41	16	3.8	1.9
23	.77	.40	.40	.40	.60	.60	2.4	12	41	15	3.7	2.0
24	.88	.40	.40	.40	.60	.60	2.5	14	44	14	3.3	1.9
25	.77	.40	.40	.40	.60	.60	2.5	14	48	14	3.5	1.6
26	.77	.40	.40	.40	.60	.60	2.5	15	52	13	4.0	1.7
27	1.0	.40	.40	.40	.60	.60	2.5	18	55	12	3.3	1.9
28	.97	.40	.40	.40	.60	.60	2.5	20	57	12	3.0	1.9
29	.97	.40	.40	.40	---	.60	2.6	23	58	11	2.9	2.0
30	.88	.40	.40	.40	---	.60	2.8	25	56	10	2.8	2.0
31	.82	---	.40	.40	---	.60	---	26	---	8.9	2.6	---
TOTAL	29.46	18.72	12.40	12.40	14.25	18.60	47.80	325.3	1292	891.9	149.9	69.1
MEAN	.95	.62	.40	.40	.51	.60	1.59	10.5	43.1	28.8	4.84	2.30
MAX	1.6	.82	.40	.40	.60	.60	2.8	26	58	60	7.8	3.8
MIN	.54	.40	.40	.40	.20	.60	.60	4.2	28	8.9	2.6	1.6
AC-FT	58	37	25	25	28	37	95	645	2560	1770	297	137

CAL YR 1981 TOTAL 1372.19 MEAN 3.76 MAX 52 MIN .10 AC-FT 2720
WTR YR 1982 TOTAL 2881.83 MEAN 7.90 MAX 60 MIN .20 AC-FT 5720

NOTE.--NO GAGE-HEIGHT RECORD NOV. 7 TO APR. 27.

09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", Eagle County, Hydrologic Unit 14010003, on left bank 150 ft (46 m) upstream from road culvert, 1,400 ft (430 m) upstream from Indian Creek, and 6.8 mi (10.9 km) north of Minturn.

DRAINAGE AREA.--7.27 mi^2 (18.83 km^2).

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,212 ft (2,809 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 8.81 ft^3/s (0.249 m^3/s), 6,380 acre-ft/yr (7.87 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 207 ft^3/s (5.86 m^3/s) June 10, 1973, gage height, 4.41 ft (1.344 m), from rating curve extended above 120 ft^3/s (3.4 m^3/s); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 105 ft^3/s (2.97 m^3/s) at 2000 June 11, gage height, 3.92 ft (1.195 m), only peak above base of 70 ft^3/s (2.0 m^3/s), maximum gage height, 3.93 ft (1.198 m) at 2100 June 5; minimum daily discharge, 0.90 ft^3/s (0.025 m^3/s) Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.0	1.5	1.4	1.1	1.1	1.1	10	59	54	7.0	2.3
2	1.6	2.0	1.5	1.3	1.1	1.1	1.1	12	61	49	6.7	2.2
3	2.3	2.0	1.4	1.3	1.0	1.2	1.2	15	58	44	6.6	2.1
4	3.0	2.0	1.5	1.3	1.0	1.2	1.2	17	63	39	6.0	2.1
5	3.4	2.0	1.4	1.3	1.0	1.1	1.1	17	73	34	5.5	3.1
6	2.9	1.9	1.4	1.4	1.0	1.1	1.1	13	78	32	5.2	2.8
7	2.7	1.9	1.4	1.4	1.0	1.0	1.1	11	80	29	4.7	2.3
8	2.7	1.9	1.3	1.3	.90	1.0	1.1	11	85	27	4.4	2.5
9	2.7	1.9	1.3	1.3	1.1	1.0	1.1	14	87	29	4.9	2.8
10	2.4	1.8	1.3	1.4	1.3	1.0	1.1	16	87	26	4.5	2.3
11	2.4	1.7	1.3	1.4	1.2	1.0	1.1	16	86	24	4.2	3.0
12	2.6	1.7	1.3	1.4	1.2	1.1	1.1	16	92	23	4.1	4.8
13	2.7	1.7	1.3	1.4	1.2	1.2	1.4	15	84	22	4.5	4.1
14	2.8	1.8	1.3	1.4	1.2	1.3	1.7	13	76	21	5.3	3.9
15	2.7	1.8	1.3	1.4	1.2	1.2	1.8	12	74	19	4.0	3.4
16	2.7	1.8	1.3	1.4	1.1	1.2	2.0	12	76	18	3.9	3.1
17	2.5	1.7	1.4	1.4	1.1	1.2	2.2	12	78	17	3.9	2.7
18	2.6	1.7	1.3	1.4	1.0	1.2	2.4	13	79	15	4.1	2.5
19	2.5	1.7	1.1	1.4	1.0	1.2	2.8	14	69	14	3.5	2.7
20	2.5	1.6	1.3	1.3	1.0	1.1	3.0	15	66	13	3.5	2.5
21	2.4	1.6	1.4	1.3	1.1	1.1	3.2	16	64	12	3.6	2.3
22	2.4	1.6	1.3	1.2	1.1	1.0	3.5	23	63	11	3.3	2.2
23	2.2	1.6	1.2	1.2	1.1	1.0	3.6	28	63	11	3.2	2.4
24	2.1	1.6	1.1	1.2	1.1	1.0	3.8	29	62	10	2.9	2.2
25	2.0	1.6	1.0	1.2	1.1	1.1	4.5	28	63	12	3.2	2.2
26	2.0	1.7	1.3	1.1	1.1	1.1	5.1	31	61	11	3.5	2.4
27	2.3	1.6	1.3	1.2	1.1	1.1	4.7	41	60	9.4	2.9	2.3
28	2.2	1.6	1.3	1.1	1.1	1.1	4.9	48	61	13	2.8	2.5
29	2.2	1.5	1.3	1.2	---	1.2	6.4	55	59	12	2.7	2.7
30	2.2	1.5	1.3	1.1	---	1.2	7.1	56	56	9.2	2.6	2.6
31	2.1	---	1.4	1.2	---	1.2	---	57	---	7.8	2.4	---
TOTAL	75.5	52.5	40.8	40.3	30.50	34.6	77.5	686	2123	667.4	129.6	81.0
MEAN	2.44	1.75	1.32	1.30	1.09	1.12	2.58	22.1	70.8	21.5	4.18	2.70
MAX	3.4	2.0	1.5	1.4	1.3	1.3	7.1	57	92	54	7.0	4.8
MIN	1.6	1.5	1.0	1.1	.90	1.0	1.1	10	56	7.8	2.4	2.1
AC-FT	150	104	81	80	60	69	154	1360	4210	1320	257	161

CAL YR 1981 TOTAL 2346.24 MEAN 6.43 MAX 52 MIN .84 AC-FT 4650
WTR YR 1982 TOTAL 4038.70 MEAN 11.1 MAX 92 MIN .90 AC-FT 8010

NOTE.--NO GAGE-HEIGHT RECORD JAN. 4 TO APR. 21.

EAGLE RIVER BASIN

09067000 BEAVER CREEK AT AVON, CO

LOCATION.--Lat 39°37'47", long 106°31'20", in NE¼SW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft (170 m) upstream from U.S. Highways 6 and 24, and 700 ft (210 m) upstream from mouth.

DRAINAGE AREA.--15.7 mi² (40.7 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914 (fragmentary), May 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,453 ft (2,272 m), from topographic map. Prior to May 1, 1974, nonrecording gage near present site at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation above and below station. Slight natural regulation by several small lakes in headwaters.

AVERAGE DISCHARGE.--8 years (water years 1975-82) 11.5 ft³/s (0.326 m³/s) 8,330 acre-ft/yr (10.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s (6.06 m³/s) June 13, 1978, gage height, 2.53 ft (0.771 m); minimum daily, 0.55 ft³/s (0.016 m³/s) Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 106 ft³/s (300 m³/s) at 2200 June 28, gage height, 2.36 ft (0.719 m), only peak above base of 80 ft³/s (2.3 m³/s); minimum daily, 0.80 ft³/s (0.023 m³/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	4.3	3.0	2.4	1.4	1.7	2.4	13	42	94	22	9.0
2	2.0	4.6	3.1	2.2	1.4	1.7	2.4	15	44	90	21	8.5
3	2.6	4.5	2.6	2.2	1.4	1.8	2.4	17	44	85	21	8.5
4	4.2	4.3	2.8	2.2	1.4	1.6	2.4	20	43	83	19	8.0
5	5.1	4.2	2.6	2.2	1.4	1.2	2.2	20	48	77	18	11
6	3.5	4.0	2.5	2.2	1.4	1.6	2.2	16	49	73	16	12
7	2.9	4.3	2.6	2.4	1.3	1.6	2.2	15	51	66	15	10
8	3.6	4.0	2.4	2.2	1.7	1.7	2.2	15	56	58	14	9.5
9	4.2	3.5	2.4	2.0	1.8	1.8	2.0	17	60	58	16	9.3
10	3.6	3.5	2.6	2.2	1.7	1.8	3.3	18	60	54	15	8.1
11	3.7	3.5	2.8	2.2	1.7	2.2	3.4	17	59	51	14	10
12	4.1	3.2	2.6	2.0	1.6	2.8	5.3	18	60	48	14	16
13	3.5	3.2	2.6	1.0	1.6	2.8	6.2	17	64	46	16	14
14	4.5	3.2	2.8	.80	1.6	2.8	7.3	15	64	45	20	13
15	3.7	3.2	3.0	1.6	1.5	2.6	7.6	14	60	41	15	11
16	5.1	3.2	2.8	1.6	1.5	2.6	6.1	13	63	38	13	10
17	4.0	3.0	2.8	1.6	1.5	2.6	4.8	13	70	36	12	9.1
18	3.5	3.2	2.8	1.4	1.5	2.6	5.5	14	76	34	12	8.3
19	2.9	3.2	2.6	1.6	1.5	2.6	4.8	16	72	32	18	8.2
20	2.3	3.0	2.8	1.4	1.5	2.2	3.6	17	68	31	16	8.3
21	2.1	3.0	3.0	1.4	1.6	2.2	4.2	18	68	29	13	7.4
22	2.0	3.0	2.8	1.4	1.6	2.2	4.6	20	69	29	11	6.5
23	2.1	3.1	2.8	1.4	1.6	2.4	5.3	23	73	27	10	6.6
24	4.0	3.0	2.6	1.4	1.6	2.6	6.2	25	77	26	9.1	6.2
25	3.7	3.1	2.8	1.5	1.6	2.8	7.7	26	80	25	9.6	5.6
26	3.7	3.0	3.0	1.5	1.6	2.8	8.3	26	84	26	12	6.1
27	3.8	2.8	3.0	1.5	1.6	2.6	8.3	30	83	29	11	5.8
28	4.1	2.9	2.8	1.5	1.6	2.6	9.0	36	96	37	11	7.6
29	4.2	2.7	2.2	1.4	---	2.6	9.5	38	98	42	10	7.5
30	4.5	2.8	2.6	1.5	---	2.2	11	39	94	29	10	7.1
31	4.4	---	2.6	1.8	---	2.4	---	39	---	24	9.5	---
TOTAL	109.2	102.5	84.4	53.70	43.2	69.7	152.4	640	1975	1463	443.2	268.2
MEAN	3.52	3.42	2.72	1.73	1.54	2.25	5.08	20.6	65.8	47.2	14.3	8.94
MAX	5.1	4.6	3.1	2.4	1.8	2.8	11	39	98	94	22	16
MIN	1.6	2.7	2.2	.80	1.3	1.2	2.0	13	42	24	9.1	5.6
AC-FT	217	203	167	107	86	138	302	1270	3920	2900	879	532

CAL YR 1981 TOTAL 3013.00 MEAN 8.25 MAX 77 MIN 1.0 AC-FT 5980
WTR YR 1982 TOTAL 5404.50 MEAN 14.8 MAX 98 MIN .80 AC-FT 10720

09067000 BEAVER CREEK AT AVON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1975 to current year.

INSTRUMENTATION.--Turbidity recorder since September 1974.

REMARKS.--Daily maximum and minimum turbidity data available in district office. Effective with this report, the turbidity data at this station will continue to be published in the annual reports. Records published will be the daily maximum and minimum turbidity data.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
OCT 05...	1400	3.8	380	362	8.0	8.0	9.1	180	57	9.6
NOV 19...	1345	5.8	460	434	7.9	.5	11.3	210	71	9.0
DEC 02...	1630	2.9	345	330	7.8	.0	11.5	160	48	9.4
JAN 29...	1230	1.0	350	365	7.9	.0	11.6	170	50	11
FEB 17...	1530	2.1	365	340	8.5	.0	11.3	180	51	12
APR 13...	1630	8.7	440	395	8.0	8.0	9.0	190	57	12
MAY 13...	1300	18	225	243	8.0	3.0	10.4	130	40	8.5
JUN 08...	1130	50	130	110	7.7	7.0	9.3	51	14	3.9
JUL 08...	1535	59	65	69	7.3	8.0	9.2	28	8.0	2.0
AUG 11...	1400	14	92	126	7.2	13.0	8.1	54	16	3.4
SEP 08...	1430	7.9	165	160	7.2	11.0	8.4	67	20	4.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)
OCT 05...	2.5	.1	81	100	.9	242	.33	2.5	.25	.020
NOV 19...	4.6	.1	73	140	.9	290	.39	4.5	.13	.040
DEC 02...	4.2	.2	76	87	.7	213	.29	1.7	.23	.030
JAN 29...	3.4	.1	98	83	2.1	215	.29	.58	.16	.020
FEB 17...	3.3	.1	94	86	2.2	222	.30	1.3	.17	.020
APR 13...	4.6	.2	100	98	6.1	265	.36	6.2	.51	.020
MAY 13...	2.2	.1	81	27	1.5	151	.21	7.2	.29	.020
JUN 08...	1.5	.1	42	10	.6	71	.10	9.6	< .10	.020
JUL 08...	1.5	.1	25	9.0	.4	39	.05	6.2	< .10	--
AUG 11...	2.1	.1	37	22	.9	98	.13	3.7	< .10	< .010
SEP 08...	2.1	.1	36	27	2.0	122	.17	2.6	< .10	--

09067000 BEAVER CREEK AT AVON, CO--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	25	6.0	100	20	10	7.0	---	---
2	---	---	---	---	60	4.0	25	25	9.0	7.0	---	---
3	---	---	---	---	10	7.0	65	25	35	7.0	---	---
4	---	---	---	---	25	6.0	80	25	15	7.0	20	10
5	---	---	15	10	9.0	5.0	55	25	20	8.0	20	6.0
6	55	10	35	9.0	10	4.0	90	25	35	6.0	100	2.0
7	20	9.0	15	8.0	45	4.0	100	25	45	6.0	8.0	4.0
8	100	9.0	15	8.0	20	3.0	---	---	35	6.0	15	4.0
9	100	10	25	8.0	25	5.0	---	---	10	5.0	30	3.0
10	30	10	35	10	10	5.0	---	---	7.0	5.0	10	4.0
11	95	10	45	10	20	6.0	---	---	---	---	45	4.0
12	100	15	100	8.0	20	6.0	25	10	---	---	100	10
13	95	10	100	8.0	25	5.0	30	8.0	---	---	75	10
14	100	20	20	8.0	30	4.0	25	10	---	---	25	5.0
15	70	15	10	6.0	10	4.0	40	5.0	---	---	10	4.0
16	100	15	100	6.0	8.0	5.0	35	10	---	---	100	4.0
17	100	20	100	8.0	6.0	4.0	35	10	---	---	100	5.0
18	100	15	100	8.0	30	3.0	70	15	---	---	25	9.0
19	100	10	55	20	100	4.0	30	10	---	---	100	8.0
20	45	10	60	20	100	8.0	20	10	---	---	15	7.0
21	20	10	25	4.0	50	4.0	20	15	---	---	70	8.0
22	55	8.0	15	10	5.0	5.0	20	15	---	---	50	6.0
23	15	7.0	100	8.0	5.0	4.0	20	10	---	---	40	6.0
24	55	7.0	25	10	5.0	4.0	55	15	---	---	25	6.0
25	20	8.0	25	8.0	6.0	5.0	20	10	---	---	100	6.0
26	20	7.0	30	10	7.0	6.0	25	15	---	---	45	8.0
27	100	7.0	20	8.0	45	7.0	35	15	---	---	70	7.0
28	10	7.0	7.0	5.0	10	9.0	40	15	---	---	75	9.0
29	10	8.0	10	5.0	15	10	30	10	---	---	40	8.0
30	9.0	8.0	100	4.0	15	10	10	8.0	---	---	9.0	6.0
31	60	8.0	---	---	85	15	10	8.0	---	---	---	---
MONTH	100	7.0	100	4.0	100	3.0	100	5.0			100	2.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	100	20	---	---	---	---	4.0	.00	---	---
2	---	---	90	20	---	---	---	---	---	---	---	---
3	---	---	100	4.0	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	100	20	---	---	---	---	---	---	---	---	---	---
6	85	10	---	---	---	---	---	---	---	---	---	---
7	35	9.0	100	20	---	---	---	---	---	---	---	---
8	100	7.0	100	25	---	---	20	20	---	---	---	---
9	55	3.0	100	20	---	---	20	20	---	---	9.0	9.0
10	30	10	100	20	---	---	20	20	---	---	9.0	9.0
11	75	4.0	60	20	---	---	20	20	4.0	2.0	10	9.0
12	45	8.0	90	20	---	---	20	20	20	2.0	---	---
13	95	4.0	50	25	---	---	20	20	100	10	---	---
14	85	10	35	15	---	---	20	20	30	10	---	---
15	70	5.0	30	15	---	---	20	20	20	9.0	---	---
16	60	9.0	35	15	---	---	15	.00	45	10	---	---
17	60	9.0	90	15	---	---	15	10	100	10	---	---
18	45	8.0	80	10	80	5.0	10	9.0	20	10	---	---
19	30	8.0	100	20	85	6.0	---	---	100	8.0	---	---
20	20	5.0	100	30	80	55	---	---	35	10	---	---
21	60	6.0	100	20	65	50	---	---	15	10	---	---
22	75	7.0	70	30	50	4.0	---	---	20	10	---	---
23	35	8.0	55	30	10	4.0	---	---	---	---	---	---
24	55	8.0	---	---	15	6.0	---	---	---	---	---	---
25	45	9.0	---	---	15	7.0	---	---	---	---	---	---
26	25	9.0	---	---	25	4.0	---	---	---	---	---	---
27	50	6.0	---	---	20	.00	---	---	---	---	---	---
28	45	8.0	---	---	25	.00	---	---	---	---	---	---
29	40	20	---	---	10	.00	6.0	6.0	---	---	---	---
30	100	15	---	---	10	.00	40	4.0	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	100	3.0										

09069000 EAGLE RIVER AT GYPSUM, CO

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, Hydrologic Unit 14010003, at bridge at Gypsum, about 400 ft (120 m) upstream from Gypsum Creek, about 520 ft (160 m) upstream from bridge on U.S. Highways 6 and 24, and about 550 ft (170 m) upstream from gaging station.

DRAINAGE AREA.--944 mi² (2,445 km²), at gaging station.

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1947 to current year.
WATER TEMPERATURE: April 1949 to current year.

REMARKS.--Records of discharge, water-quality samples and daily values observations are given for Eagle River below Gypsum (station 09070000), located 550 ft downstream from Eagle River at Gypsum (station 09069000).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,850 micromhos Aug. 6, 1949; minimum daily, 130 micromhos June 9, 10, 1976.
WATER TEMPERATURES: Maximum, 24°C Aug. 24, 1949; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,050 micromhos Feb. 7; minimum daily, 190 micromhos several days in June.
WATER TEMPERATURES: Maximum daily, 21.0°C Aug. 19; minimum daily, freezing point on many days during November to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC 02...	1330	186	990	963	7.9	.0	13.0	1.2	360	110	21
FEB 18...	1000	165	830	780	7.8	.0	11.8	1.3	320	97	20
JUN 08...	1500	1800	210	221	7.8	9.0	9.8	.82	88	26	5.6
AUG 11...	1045	535	444	470	7.5	13.0	8.4	.88	190	57	11

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)
DEC 02...	70	1.7	2.9	140	230	110	.2	9.0	640	321
FEB 18...	43	1.1	3.3	140	210	60	.0	9.1	528	235
JUN 08...	5.5	.3	1.1	66	30	7.1	.1	6.0	122	593
AUG 11...	20	.7	1.5	97	99	25	.1	7.1	280	404

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC DIS. (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC 02...	.87	.72	.62	.64	.56	1.4	.070	.090	33	57
FEB 18...	.72	.52	.40	.96	.87	1.5	.180	.060	11	36
JUN 08...	.17	.30	.12	--	.70	--	.120	.030	110	35
AUG 11...	.38	.20	.18	.70	.70	.90	.030	.030	42	36

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)
DEC									
02...	1330	1	1	<1	<1	4	1	4	<1
FEB									
18...	1000	3	<1	<1	<1	3	<1	5	2
JUN									
08...	1500	1	1	<1	<1	2	<1	5	<1
AUG									
11...	1045	1	1	<1	<1	9	<1	3	1

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC								
02...	7	1	<.1	<.1	<1	<1	60	15
FEB								
18...	<1	<1	.2	<.1	1	1	100	22
JUN								
08...	2	<1	.2	.5	1	1	80	15
AUG								
11...	<1	1	.2	<.1	<1	1	60	19

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	700	300	---	---	900	900	360	240	200	400	---
2	750	700	700	---	850	950	850	300	240	200	370	---
3	750	700	700	---	800	900	900	280	220	225	400	700
4	750	750	700	---	850	850	900	260	240	225	400	700
5	700	700	700	---	900	900	850	360	220	225	450	675
6	650	750	700	---	900	925	800	340	220	240	440	650
7	650	750	700	800	1050	950	800	350	240	260	460	680
8	650	700	700	---	900	950	850	300	220	260	460	660
9	---	700	725	---	900	950	850	300	220	270	460	700
10	670	750	700	---	900	900	850	320	210	280	440	700
11	650	800	---	---	850	900	800	320	250	280	450	700
12	650	825	675	800	850	700	800	340	---	270	480	660
13	600	700	---	800	850	900	800	340	220	270	460	560
14	625	750	700	800	850	950	600	340	220	280	460	580
15	600	725	675	800	850	900	560	400	240	280	430	600
16	600	700	675	800	850	900	540	410	220	260	460	600
17	580	700	700	800	850	900	560	420	240	240	480	---
18	580	625	675	800	900	900	500	---	240	240	480	600
19	600	700	650	800	1000	950	600	360	190	220	460	---
20	600	700	625	800	900	950	600	380	190	220	480	---
21	600	700	700	800	900	950	560	---	220	240	500	---
22	650	700	750	900	900	850	580	380	190	250	520	---
23	650	700	480	950	900	950	560	320	200	250	520	---
24	650	700	---	950	850	950	520	300	---	230	550	---
25	650	725	---	900	900	950	500	300	---	230	560	---
26	---	625	---	900	900	950	500	320	190	250	560	---
27	700	725	---	950	900	900	460	280	220	280	600	750
28	600	750	---	850	900	900	450	260	190	300	600	700
29	---	700	---	850	---	900	450	280	---	300	600	725
30	560	700	---	850	---	875	425	260	200	300	---	700
31	690	---	---	850	---	900	---	220	---	---	650	---
MEAN	645	715			887	910	664	324	219	253	486	

WTR YR 1982 MEAN 600 MAX 1050 MIN 190

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	6.0	.0	.0	---	5.0	9.0	13.0	11.0	12.0	18.0	---
2	10.0	6.0	.0	.0	.0	6.0	8.0	12.0	11.0	13.0	18.0	---
3	12.0	6.0	1.0	.0	.0	5.0	10.0	12.0	11.0	14.0	18.0	20.0
4	10.0	5.0	1.0	.0	.0	5.0	11.0	12.0	13.0	14.0	19.0	18.0
5	12.0	6.0	1.0	.0	.0	5.0	9.0	8.0	12.0	14.0	19.0	15.0
6	13.0	4.0	1.0	.0	.0	6.0	7.0	9.0	12.0	14.0	19.0	12.0
7	10.0	4.0	1.0	.0	.0	6.0	7.0	10.0	12.0	13.0	18.0	17.0
8	10.0	5.0	1.0	---	.0	6.0	8.0	10.0	12.0	13.0	19.0	16.0
9	---	5.0	1.0	---	.0	6.0	9.0	10.0	12.0	13.0	19.0	17.0
10	12.0	5.0	1.0	---	.0	7.0	10.0	12.0	12.0	13.0	18.0	16.0
11	12.0	5.0	---	---	1.0	7.0	12.0	10.0	12.0	13.0	18.0	16.0
12	11.0	5.0	3.0	.0	1.0	8.0	13.0	9.0	---	13.0	17.0	12.0
13	10.0	5.0	---	.0	2.0	10.0	13.0	8.0	10.0	14.0	18.0	11.0
14	10.0	4.0	2.0	.0	2.0	10.0	14.0	5.0	11.0	14.0	19.0	11.0
15	10.0	5.0	1.0	1.0	3.0	10.0	12.0	6.0	12.0	15.0	20.0	13.0
16	10.0	5.0	1.0	1.0	3.0	10.0	12.0	10.0	12.0	15.0	20.0	15.0
17	10.0	5.0	.0	1.0	3.0	9.0	11.0	12.0	12.0	16.0	20.0	15.0
18	9.0	4.0	.0	1.0	3.0	9.0	11.0	---	12.0	16.0	20.0	15.0
19	9.0	5.0	2.0	1.0	3.0	8.0	9.0	14.0	13.0	17.0	21.0	15.0
20	9.0	5.0	2.0	1.0	4.0	8.0	9.0	14.0	13.0	17.0	20.0	15.0
21	9.0	4.0	1.0	1.0	4.0	8.0	11.0	---	11.0	17.0	20.0	15.0
22	8.0	4.0	1.0	2.0	4.0	8.0	11.0	12.0	11.0	18.0	19.0	15.0
23	6.0	5.0	.0	2.0	4.0	8.0	11.0	10.0	11.0	18.0	19.0	15.0
24	8.0	6.0	.0	2.0	3.0	10.0	12.0	10.0	---	19.0	19.0	15.0
25	7.0	4.0	.0	2.0	4.0	9.0	14.0	12.0	---	19.0	20.0	14.0
26	---	2.0	.0	2.0	4.0	11.0	12.0	12.0	11.0	19.0	20.0	14.0
27	8.0	.0	.0	2.0	4.0	11.0	12.0	14.0	13.0	18.0	20.0	13.0
28	6.0	1.0	.0	1.0	5.0	12.0	13.0	13.0	14.0	18.0	20.0	11.0
29	---	1.0	.0	1.0	---	8.0	14.0	12.0	---	16.0	20.0	11.0
30	4.0	.0	.0	1.0	---	5.0	15.0	12.0	12.0	16.0	---	10.0
31	6.0	---	.0	1.0	---	10.0	---	12.0	---	---	19.0	---
MEAN	9.5	4.0	.5	1.0	2.0	8.0	11.0	11.0	12.0	15.5	19.0	14.5

WTR YR 1982 MEAN 9.0 MAX 21.0 MIN .0

09070000 EAGLE RIVER BELOW GYPSUM, CO

LOCATION.--Lat 39°38'58", long 106°57'11", in SW¼NW¼ sec.5, T.5 S., R.85 W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft (9 m) downstream from bridge on U.S. Highways 6 and 24 at Gypsum and 150 ft (46 m) downstream from Gypsum Creek.

DRAINAGE AREA.--944 mi^2 (2,445 km^2).

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft (1,913 m), from topographic map.

REMARKS.--Records good except for periods of no gage-height record, which are poor. Transmountain diversions above station (see elsewhere in this report). Transbasin diversions above station from Robinson Reservoir, capacity, 2,520 acre-ft (3.11 hm^3) to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 558 ft^3/s (15.80 m^3/s), 404,300 acre-ft/yr (498 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,580 ft^3/s (186 m^3/s) June 11, 1952, gage height, 9.15 ft (2.789 m); maximum gage height, 9.17 ft (2.795 m) June 29, 1957; minimum daily discharge, 110 ft^3/s (3.12 m^3/s) Feb. 21, 1955, Feb. 3, 1956, Dec. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,560 ft^3/s (82.4 m^3/s) at 0800 June 29, gage height, 7.26 ft (2.213 m), only peak above base of 3,500 ft^3/s (99 m^3/s); minimum daily, 130 ft^3/s (3.68 m^3/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	250	183	182	156	156	171	609	2100	2930	750	339
2	184	247	189	173	152	166	174	800	2130	2810	700	316
3	189	244	205	183	149	176	161	1000	2120	2570	650	302
4	228	243	195	170	152	164	167	1190	1920	2470	600	301
5	279	240	197	193	150	153	166	1350	2140	2210	596	351
6	236	237	195	197	136	145	166	986	2370	2110	565	431
7	226	241	198	186	134	148	168	814	2280	1890	548	392
8	231	242	199	195	174	145	157	745	2450	1770	527	356
9	239	232	191	190	191	150	160	793	2490	1780	553	364
10	229	219	194	190	174	150	156	893	2670	1710	563	355
11	227	211	187	200	174	152	161	933	2600	1640	532	399
12	285	209	188	200	171	197	208	953	2650	1590	516	518
13	280	218	184	190	171	173	240	943	2780	1610	540	534
14	270	222	178	200	165	174	272	826	2660	1550	628	532
15	271	220	184	190	150	179	324	738	2460	1540	586	489
16	299	215	185	190	150	173	348	710	2300	1420	504	459
17	300	211	183	190	150	174	297	674	2660	1380	464	442
18	287	218	150	187	150	167	308	705	3100	1310	449	420
19	282	214	183	176	151	168	313	768	2830	1240	450	406
20	275	194	205	163	152	159	280	840	2540	1200	492	398
21	275	210	199	162	155	149	245	830	2610	1120	473	385
22	265	220	185	160	157	149	254	970	2640	1060	445	367
23	256	214	163	169	158	153	278	1210	2700	1050	438	356
24	254	206	130	158	156	157	292	1330	2870	992	426	349
25	255	210	153	168	154	161	321	1290	3010	950	393	344
26	244	203	174	170	151	166	370	1180	2990	930	445	345
27	250	180	177	164	154	165	389	1470	2800	948	426	342
28	257	191	161	169	159	172	377	1720	3150	1300	394	353
29	260	195	179	158	---	180	430	2030	3260	1200	408	360
30	273	204	204	172	---	167	445	2110	3070	950	374	352
31	257	---	195	162	---	152	---	2000	---	800	355	---
TOTAL	7853	6560	5693	5557	4396	5040	7798	33410	78350	48030	15790	11657
MEAN	253	219	184	179	157	163	260	1078	2612	1549	509	389
MAX	300	250	205	200	191	197	445	2110	3260	2930	750	534
MIN	184	180	130	158	134	145	156	609	1920	800	355	301
AC-FT	15580	13010	11290	11020	8720	10000	15470	66270	155400	95270	31320	23120

CAL YR 1981 TOTAL 126327 MEAN 346 MAX 2520 MIN 130 AC-FT 250600
WTR YR 1982 TOTAL 230134 MEAN 631 MAX 3260 MIN 130 AC-FT 456500

09070500 COLORADO RIVER NEAR DOTSERO, CO

LOCATION.--Lat 39°38'38", long 107°04'38" (revised), in NW¼SE¼ sec.6, T.5 S., R.86 W., Eagle County, Hydrologic Unit 14010001, on left bank about 500 ft (150 m) south of U.S. Highways 6 and 24, 1.5 mi (2.4 km) west of Dotsero, and 1.5 mi (2.4 km) downstream from Eagle River.

DRAINAGE AREA.--4,394 mi^{2} (11,380 km^{2}).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,130 ft (1,868 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres (275 km^{2}) above station, and return flow from irrigated areas.

COOPERATION.--Gage-height record collected in cooperation with the Colorado State Engineer.

AVERAGE DISCHARGE.--42 years, 2,060 ft^{3}/s (58.34 m^{3}/s), 1,492,000 acre-ft/yr (1,840 hm^{3}/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft^{3}/s (541 m^{3}/s) June 8, 1952, gage height, 11.56 ft (3.523 m); minimum daily, 350 ft^{3}/s (9.91 m^{3}/s) Jan. 5, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,820 ft^{3}/s (193 m^{3}/s) at 1100 June 29, gage height, 6.83 ft (2.082 m), maximum gage height, 6.85 ft (2.088 m) at 1100 June 19; minimum daily discharge, 530 ft^{3}/s (15.0 m^{3}/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	947	711	790	750	846	822	1990	5620	6090	2380	1560
2	1020	932	770	740	720	895	863	2530	5490	6120	2260	1510
3	1020	921	803	690	680	943	857	3140	5330	5940	2180	1450
4	1080	921	758	630	650	893	851	3790	5030	5810	2080	1440
5	1210	916	753	700	560	831	846	4190	5360	5460	1970	1510
6	1180	907	716	740	580	778	871	3490	5550	5270	1870	1630
7	1150	908	734	710	620	803	856	3070	5430	4960	1870	1630
8	1110	911	736	560	640	780	865	2900	5570	4510	1910	1570
9	1120	901	719	600	670	794	869	2800	5590	4170	1980	1530
10	1060	884	763	650	730	793	861	2800	5670	4000	2000	1490
11	978	864	760	700	730	786	882	2900	5640	3880	1960	1520
12	1090	845	770	750	710	928	980	2850	5830	3690	1940	1760
13	1090	850	770	790	700	950	1170	3000	6140	3610	1980	1840
14	1070	861	720	780	710	903	1290	2850	6040	3300	2260	1820
15	1040	862	780	780	730	948	1500	2650	5780	3110	2360	1760
16	1080	869	780	800	760	995	1660	2550	5430	3030	2220	1690
17	1080	870	730	800	770	966	1530	2500	5820	2910	2220	1760
18	1060	864	630	800	790	933	1480	2450	6300	2760	2200	1610
19	1050	844	700	800	823	900	1500	2550	6570	2620	2130	1530
20	1040	795	780	800	793	869	1410	2750	6100	2630	2120	1510
21	1000	800	840	790	823	798	1300	2900	5860	2580	2090	1490
22	990	827	810	780	834	776	1230	3130	5790	2440	2140	1470
23	976	821	620	730	835	798	1320	3640	5790	2370	2180	1440
24	944	816	530	730	844	790	1430	4020	5990	2270	2120	1430
25	935	807	590	760	832	782	1610	4100	6080	2230	2060	1390
26	927	779	650	780	808	810	1720	4000	6170	2240	2110	1390
27	934	711	700	780	815	834	1840	4470	6000	2280	2050	1410
28	950	719	660	750	845	853	1800	4950	6320	2570	1820	1430
29	971	752	670	760	---	891	1780	5460	6450	2870	1780	1480
30	1010	775	750	720	---	912	1710	5750	6240	2750	1780	1480
31	962	---	810	720	---	816	---	5580	---	2630	1690	---
TOTAL	32157	25479	22513	22910	20752	26594	37703	105750	174980	111100	63710	46530
MEAN	1037	849	726	739	741	858	1257	3411	5833	3584	2055	1551
MAX	1210	947	840	800	845	995	1840	5750	6570	6120	2380	1840
MIN	927	711	530	560	560	776	822	1990	5030	2230	1690	1390
AC-FT	63780	50540	44650	45440	41160	52750	74780	209800	347100	220400	126400	92290

CAL YR 1981 TOTAL 470504 MEAN 1289 MAX 6570 MIN 530 AC-FT 933200
WTR YR 1982 TOTAL 690178 MEAN 1891 MAX 6570 MIN 530 AC-FT 1369000

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Partial record station May 1962 to February 1980, February 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1980 to current year.
WATER TEMPERATURE: February 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office. Water-quality data for the 1981 water year is published in this report.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1410 micromhos Sept. 12, 1981, minimum, 168 micromhos June 12, 1980.
WATER TEMPERATURE: Maximum, 24.0°C Aug. 4, 1981; minimum; 0.0°C several days during winter period each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 767 micromhos Dec. 25; minimum, 184 micromhos June 9.
WATER TEMPERATURE: Maximum 20.0°C Aug. 6, 20; minimum, 0.0°C several days during winter period.

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT										
03...	--	1050	--	463	8.1	10.5	176	54	10	25
10...	1240	1080	490	486	8.1	12.0	188	57	11	27
16...	1105	1070	560	544	7.8	7.5	216	66	13	29
23...	1200	1180	460	481	7.8	7.0	186	56	11	26
28...	1015	1170	500	509	8.1	3.5	198	59	12	27
NOV										
04...	--	1100	515	494	8.1	5.0	186	56	11	28
14...	--	1270	--	486	8.1	5.0	178	53	11	29
21...	0950	978	510	515	7.9	.0	188	55	12	32
25...	--	858	--	483	8.2	.0	180	54	11	30
25...	0930	858	500	483	8.2	.0	180	54	11	30
DEC										
04...	0830	1030	500	486	7.7	1.0	178	54	11	29
11...	0830	920	480	512	8.2	.0	182	54	11	32
17...	1500	1010	530	479	8.1	.5	174	52	11	30
24...	1045	874	480	458	8.0	.5	172	51	11	29
31...	1130	887	500	477	8.0	.5	176	53	11	30
JAN										
08...	1200	814	500	477	8.1	.5	174	52	11	31
16...	1130	885	520	513	8.0	1.0	180	54	11	33
21...	1500	800	605	571	8.1	1.5	202	60	13	38
29...	1530	760	540	531	8.0	2.0	188	56	12	34
FEB										
06...	1030	868	480	512	8.0	.0	178	53	11	35
13...	1445	844	560	560	8.0	1.0	196	59	12	38
20...	1315	844	525	504	7.9	2.0	176	53	11	33
25...	1500	704	545	508	8.3	4.0	184	55	11	36
MAR										
06...	1220	760	560	546	8.0	5.5	190	57	12	35
13...	1030	658	550	572	7.9	5.0	198	58	13	37
18...	0830	784	590	538	8.1	3.5	188	55	12	33
25...	1000	694	560	536	8.3	6.0	200	59	13	35
APR										
01...	1100	601	560	555	8.2	6.0	202	59	13	34
10...	0810	705	650	543	8.0	8.5	190	55	13	35
17...	0900	1270	375	386	7.8	10.0	146	44	9.0	21
23...	1630	1630	365	390	8.0	13.1	144	42	9.3	22
30...	1215	1770	330	318	7.9	13.0	125	38	7.4	16
MAY										
06...	1200	1740	320	303	7.8	11.1	120	36	7.3	12
15...	1215	1230	395	392	8.8	11.0	146	45	8.3	21
21...	1600	1440	400	407	8.0	12.0	156	47	9.3	20
30...	0930	2940	300	301	7.9	13.0	117	36	6.8	12
JUN										
18...	1335	1650	425	385	8.4	14.0	148	44	9.1	20
26...	0905	1170	440	430	7.9	17.0	168	51	9.8	24
JUL										
01...	0905	1350	520	494	8.0	17.0	194	62	9.8	24
10...	1000	1400	550	509	8.5	19.0	200	60	12	28
16...	1310	1170	500	543	8.1	21.5	234	74	12	29
22...	1100	1110	550	520	8.0	18.5	216	67	12	29
31...	1030	1250	480	454	7.9	17.5	184	56	11	25
AUG										
05...	1830	1280	510	423	8.1	22.0	164	50	9.3	25
12...	1505	1440	420	404	8.0	16.5	158	50	8.3	21
21...	1440	1300	440	402	8.1	17.5	154	48	8.3	23
28...	0845	1380	420	394	8.4	15.0	152	47	8.3	22
SEP										
04...	0830	1350	415	405	7.8	14.5	154	47	8.8	21
11...	1115	1500	440	411	8.1	15.0	158	48	9.3	23
18...	1215	1170	420	441	8.1	14.0	166	50	9.8	25
25...	0945	1190	450	432	8.1	14.0	158	48	9.3	27

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
03...	.8	2.0	122	.00	94	27	293	.40	831
10...	.9	3.0	128	.00	98	32	313	.43	913
16...	.9	3.0	140	.00	118	37	346	.47	1000
23...	.9	2.0	131	.00	97	30	297	.40	946
28...	.9	2.0	137	.00	99	36	330	.45	1040
NOV									
04...	.9	2.0	131	.00	98	34	310	.42	921
14...	1.0	2.0	127	.00	96	35	336	.46	1150
21...	1.1	2.0	134	.00	98	39	316	.43	834
25...	1.0	2.0	128	.00	94	39	303	.41	702
25...	1.0	2.0	128	.00	94	39	303	.41	702
DEC									
04...	1.0	2.0	124	.00	86	37	309	.42	859
11...	1.1	2.0	129	.00	100	42	309	.42	768
17...	1.0	2.0	128	.00	88	36	320	.44	873
24...	1.0	2.0	122	.00	84	39	282	.38	665
31...	1.0	2.0	124	.00	86	39	289	.39	692
JAN									
08...	1.1	2.0	126	.00	88	42	308	.42	677
16...	1.1	2.0	128	.00	86	45	320	.44	765
21...	1.2	2.0	140	.00	110	46	355	.48	767
29...	1.1	2.0	131	.00	94	45	333	.45	683
FEB									
06...	1.2	3.0	134	.00	64	44	313	.43	734
13...	1.2	3.0	139	.00	102	50	364	.50	829
20...	1.1	2.0	127	.00	90	44	323	.44	736
25...	1.2	3.0	105	12	90	46	335	.46	637
MAR									
06...	1.1	3.0	140	.00	93	48	334	.45	685
13...	1.2	3.0	133	.00	99	45	352	.48	625
18...	1.1	3.0	132	.00	102	46	334	.45	707
25...	1.1	3.0	126	4.0	106	44	347	.47	650
APR									
01...	1.1	3.0	137	.00	99	45	350	.48	568
10...	1.1	3.0	134	.00	102	39	328	.45	624
17...	.8	3.0	111	.00	66	27	246	.33	844
23...	.8	2.0	109	.00	61	32	246	.33	1080
30...	.6	2.0	96	.00	52	21	191	.26	913
MAY									
06...	.5	2.0	93	.00	48	16	178	.24	836
15...	.8	2.0	84	13	68	22	232	.32	770
21...	.7	2.0	114	.00	67	19	245	.33	953
30...	.5	2.0	101	.00	43	9.2	157	.21	1250
JUN									
18...	.7	2.0	103	5.0	65	19	215	.29	958
26...	.8	2.0	120	.00	73	28	247	.34	780
JUL									
01...	.8	2.0	135	.00	91	27	282	.38	1030
10...	.9	2.0	116	10	100	33	302	.41	1140
16...	.8	2.0	143	.00	122	35	344	.47	1090
22...	.9	2.0	145	.00	104	35	321	.44	962
31...	.8	2.0	127	.00	88	31	275	.37	928
AUG									
05...	.9	2.0	125	.00	77	30	255	.35	881
12...	.8	2.0	112	.00	79	30	246	.33	956
21...	.8	2.0	114	.00	74	28	240	.33	842
28...	.8	2.0	109	1.0	72	28	234	.32	872
SEP									
04...	.8	2.0	114	.00	71	31	239	.33	871
11...	.8	2.0	114	.00	75	30	243	.33	984
18...	.9	2.0	118	.00	83	36	264	.36	834
25...	1.0	2.0	119	.00	77	37	259	.35	832

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT									
01...	1200	1030	510	453	12.0	166	50	10	29
08...	1315	1120	500	454	11.0	174	53	10	28
16...	1335	1100	550	490	9.0	193	59	11	28
22...	1445	970	570	479	7.5	188	57	11	28
29...	1045	960	490	484	7.0	188	57	11	28
NOV									
05...	1355	900	520	570	5.5	188	57	11	28
11...	1500	840	590	482	4.5	188	57	11	30
19...	1515	826	550	486	3.0	192	57	12	31
27...	1435	750	560	508	.5	190	58	11	33
DEC									
02...	1100	--	590	550	2.5	211	63	13	35
10...	1140	720	490	449	.5	199	60	12	31
17...	1115	620	530	503	.5	194	58	12	34
24...	1045	590	630	555	.0	226	69	13	42
30...	1015	1180	480	444	1.0	202	61	12	31
JAN									
07...	1340	607	600	445	.0	199	60	12	32
14...	1130	790	440	542	.0	231	71	13	30
21...	1200	830	520	499	.0	204	62	12	30
29...	1430	990	510	530	.0	186	58	10	30
FEB									
04...	1100	630	500	510	.5	179	55	10	28
12...	1130	575	410	460	.5	157	48	9.0	25
18...	1200	--	480	443	1.0	171	52	10	26
24...	1745	--	490	450	2.0	171	52	10	25
MAR									
04...	1245	--	510	468	3.0	183	55	11	28
11...	1100	--	540	530	4.0	193	56	13	31
18...	1245	914	540	560	6.0	205	59	14	31
25...	1200	790	540	560	7.0	198	58	13	32
APR									
01...	1320	870	560	570	6.0	205	59	14	33
09...	1315	890	490	500	6.0	182	53	12	28
13...	1215	1300	490	700	10.0	196	57	13	59
23...	0830	1390	410	430	7.0	170	50	11	24
29...	1440	1970	480	510	9.0	172	49	12	40
29...	1500	1970	365	390	9.0	153	45	9.9	17
MAY									
07...	1100	3130	260	300	5.0	127	38	7.7	7.6
13...	1430	3370	310	310	7.0	131	38	8.8	8.7
21...	0840	3250	325	320	9.0	136	40	8.8	13
28...	0945	5580	260	270	10.0	119	35	7.7	9.9
JUN									
04...	1030	5670	235	260	9.0	109	32	7.0	8.0
09...	1130	--	205	230	9.0	97	29	6.0	8.0
16...	1000	6900	215	220	9.5	97	29	6.0	9.0

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
JUN										
22...	1015	5400	250	230	10.0	97	29	6.0	10	.5
JUL										
02...	1430	6000	--	220	.0	92	27	6.0	11	.5
08...	1245	4550	290	290	12.5	116	35	7.0	10	.4
16...	1230	3130	340	350	17.0	144	43	9.0	17	.6
22...	1230	2460	400	360	17.0	147	44	9.0	18	.7
30...	0915	2750	350	370	15.0	145	45	8.0	13	.5
AUG										
05...	1125	1120	390	410	16.5	157	48	9.0	17	.6
12...	0845	1920	390	410	15.0	159	47	10	17	.6
18...	1130	2240	405	410	18.0	152	46	9.0	17	.6
26...	1330	2130	390	420	16.0	154	47	9.0	18	.7
SEP										
03...	0910	1460	450	460	14.0	174	53	10	22	.8
09...	1300	1470	440	460	15.5	174	53	10	22	.8
16...	--	1710	475	460	13.5	178	53	11	23	.8
24...	1120	1430	440	470	13.5	180	54	11	25	.8
30...	1045	1460	440	460	10.0	174	53	10	22	.8

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
01...	1.0	.1	120	.00	65	41	276	.38	768
08...	1.0	2.0	120	.00	82	37	273	.37	826
16...	.9	2.0	130	.00	96	38	301	.41	894
22...	.9	2.0	120	8.0	92	38	311	.42	815
29...	.9	2.0	130	.00	90	34	287	.39	744
NOV									
05...	.9	2.0	110	9.0	94	39	297	.40	722
11...	1.0	2.0	120	12	93	38	302	.41	685
19...	1.0	2.0	120	8.0	92	38	296	.40	660
27...	1.1	2.0	120	7.0	93	44	307	.42	622
DEC									
02...	1.1	2.0	150	.00	110	46	340	.46	--
10...	1.0	2.0	130	.00	96	39	306	.42	595
17...	1.1	2.0	140	.00	89	43	305	.41	511
24...	1.3	2.0	120	13	100	53	356	.48	567
30...	1.0	2.0	120	8.0	86	44	305	.41	972
JAN									
07...	1.0	2.0	120	11	100	43	320	.44	524
14...	.9	2.0	150	.00	130	41	358	.49	764
21...	1.0	2.0	140	--	110	39	319	.43	715
29...	1.0	2.0	100	11	70	43	274	.37	732
FEB									
04...	.9	2.0	130	.00	85	41	282	.38	480
12...	.9	2.0	100	9.0	80	32	255	.35	396
18...	.9	2.0	110	7.0	83	36	268	.36	--
24...	.9	2.0	95	11	100	32	282	.38	--
MAR									
04...	.9	2.0	93	13	92	37	284	.39	--
11...	1.0	3.0	120	6.0	110	41	320	.44	--
18...	1.0	3.0	110	11	120	36	330	.45	814
25...	1.0	2.0	110	1.0	110	37	310	.42	661
APR									
01...	1.0	2.0	110	17	120	46	340	.46	799
09...	.9	4.0	100	11	96	30	280	.38	673
13...	1.9	4.0	120	6.0	100	80	380	.52	1330
23...	.8	3.0	120	--	83	21	250	.34	938
29...	1.4	2.0	120	--	82	45	290	.39	1540
29...	.6	2.0	120	--	74	17	220	.30	1170
MAY									
07...	.3	5.0	110	--	48	11	170	.23	1440
13...	.3	4.0	100	--	54	9.6	170	.23	1550
21...	.5	4.0	100	6.0	55	11	190	.26	1670
28...	.4	3.0	110	--	43	7.1	160	.22	2410
JUN									
04...	.3	2.0	95	--	33	6.0	140	.19	2140
09...	.4	2.0	89	.00	28	5.0	120	.16	--
18...	.4	3.0	77	5.0	36	5.0	130	.18	2420

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
JUN									
22...	4.0	84	.00	--	35	6.0	130	.18	1900
JUL									
02...	4.0	85	.00	--	34	5.0	130	.18	2110
08...	3.0	95	.00	--	48	9.0	160	.22	1970
16...	.4	110	.00	--	61	12	200	.27	1690
22...	.4	110	2.0	--	62	14	210	.29	1390
30...	1.4	--	--	93	65	12	200	.27	1480
AUG									
05...	1.8	--	--	100	70	18	230	.31	696
12...	1.7	--	--	98	71	17	220	.30	1140
18...	2.0	--	--	92	71	17	220	.30	1330
26...	1.8	--	--	94	75	20	230	.31	1320
SEP									
03...	2.2	--	--	100	79	25	250	.34	985
09...	1.7	--	--	110	79	25	250	.34	992
16...	2.0	--	--	100	87	23	260	.35	1200
24...	3.0	--	--	110	86	28	270	.37	1040
30...	2.0	--	--	100	79	25	250	.34	999

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	496	504	---	---	474	496	---	356	257	217	384	---
2	492	442	571	---	476	490	570	346	260	219	382	---
3	500	475	594	---	472	499	568	346	258	227	382	---
4	505	469	576	---	510	499	---	331	240	231	382	---
5	509	462	504	---	570	504	---	316	222	243	389	---
6	489	496	577	---	527	514	---	286	206	255	392	---
7	489	450	464	522	516	513	521	275	205	270	396	---
8	501	469	513	567	515	519	510	284	202	285	390	---
9	509	500	512	613	482	520	534	292	193	296	389	---
10	509	505	542	662	448	528	480	289	189	303	386	443
11	514	490	526	643	430	530	468	290	196	317	388	453
12	526	502	504	612	461	540	587	292	198	324	409	472
13	524	514	514	575	486	500	487	300	196	322	449	428
14	526	495	520	567	502	507	---	316	205	317	420	443
15	530	494	524	565	487	518	---	346	217	324	402	449
16	532	---	514	556	472	514	---	370	231	340	494	479
17	528	---	534	544	473	522	---	385	223	342	467	516
18	524	---	565	538	476	546	---	381	219	347	405	532
19	528	---	597	540	467	552	---	373	223	356	400	530
20	535	521	544	536	459	536	432	343	234	360	570	525
21	538	537	486	522	---	542	411	320	232	360	487	458
22	546	540	494	514	---	548	414	305	232	360	488	442
23	531	522	535	514	---	542	410	275	239	336	460	443
24	530	525	648	526	---	534	400	259	230	329	448	445
25	531	530	710	481	489	541	375	256	219	324	422	452
26	511	539	601	460	492	---	364	262	214	304	397	453
27	504	542	549	---	491	---	364	254	218	570	382	447
28	499	547	535	---	498	---	370	260	216	511	393	445
29	504	530	556	---	---	---	371	232	210	460	410	445
30	472	501	547	478	---	---	355	233	211	360	405	446
31	482	---	---	478	---	---	---	252	---	381	---	---
MEAN	513	505	547	546	486	522	450	304	220	329	421	464

WTR YR 1982 MEAN 435 MAX 710 MIN 189

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	11.5	6.0	4.5	1.0	.5	1.0	1.0	.5	.5	3.0	1.5
2	13.5	11.5	6.5	4.5	1.0	.5	1.0	1.0	.5	.0	3.5	2.0
3	13.0	11.0	6.5	4.5	1.5	.5	1.0	1.0	.5	.0	3.5	2.0
4	12.0	10.5	6.5	4.0	1.5	.5	1.0	.5	.5	.0	3.5	1.5
5	13.0	7.5	6.0	4.0	1.5	.5	.5	.0	.5	.0	3.5	1.0
6	13.5	10.5	6.0	4.0	1.5	.5	.5	.0	.5	.0	3.5	.0
7	13.5	10.5	6.5	5.0	1.5	.5	.5	.0	.5	.0	3.5	.5
8	12.0	10.5	7.0	5.0	1.5	.5	.5	.0	.5	.0	3.5	.5
9	13.0	10.5	7.0	5.0	1.5	.5	.5	.0	.5	.0	4.0	1.5
10	12.5	10.0	6.0	4.0	1.0	.5	.5	.0	.5	.0	4.5	2.0
11	12.0	10.5	5.5	3.5	2.0	.0	.5	.0	.5	.0	5.0	2.0
12	10.5	9.0	5.0	3.0	2.5	1.0	.5	.0	.5	.0	6.5	4.0
13	12.0	9.5	5.5	3.0	1.5	.5	.5	.0	.5	.0	7.0	3.5
14	12.0	10.0	5.5	4.0	1.0	.5	.5	.5	.5	.0	7.0	4.5
15	11.0	9.0	7.0	4.5	2.0	1.0	.5	.0	.5	.0	7.5	5.0
16	10.5	9.0	---	---	2.0	.5	.5	.0	.5	.5	8.0	4.5
17	10.0	7.0	---	---	1.0	.0	.5	.0	1.0	.5	7.0	5.5
18	10.0	7.5	---	---	.5	.5	.5	.0	2.0	1.0	7.0	5.0
19	10.0	7.0	---	---	1.0	.5	.5	.0	2.0	1.0	6.0	3.5
20	9.5	7.0	3.0	1.0	1.5	.5	.5	.0	2.0	1.0	5.5	2.0
21	9.0	6.5	3.0	2.0	1.5	1.0	.5	.0	2.0	1.0	5.5	2.0
22	8.5	6.5	4.0	2.5	1.5	.5	.5	.0	2.0	1.0	6.0	1.5
23	8.0	5.5	4.5	3.5	.5	.0	.5	.0	2.0	1.0	6.5	2.0
24	7.5	6.5	5.0	3.0	1.0	.0	.5	.5	2.5	1.5	7.5	3.0
25	7.0	5.0	4.5	3.0	1.0	.5	.5	.0	2.5	1.0	8.5	4.5
26	7.0	4.5	2.5	.5	1.0	.5	.5	.0	3.0	1.0	7.5	5.5
27	7.5	5.0	1.0	.0	1.0	.5	.5	.0	3.0	1.5	8.5	6.0
28	7.0	5.5	1.0	.0	1.5	.5	.0	.0	4.0	1.5	10.0	6.5
29	7.5	5.5	1.0	.5	1.5	.5	.5	.0	---	---	8.5	6.0
30	6.5	5.0	1.0	.0	1.0	.5	.5	.5	---	---	6.0	4.5
31	6.0	4.0	---	---	1.0	1.0	.5	.5	---	---	6.5	3.0
MONTH	15.0	4.0	7.0	.0	2.5	.0	1.0	.0	4.0	.0	10.0	.0

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	5.0	12.5	9.5	10.5	9.5	13.0	11.0	19.5	15.5	---	---
2	7.5	4.5	12.0	9.0	11.5	9.0	13.0	10.0	18.5	17.0	---	---
3	7.5	4.5	11.0	10.0	10.5	9.5	13.5	11.0	19.0	16.5	---	---
4	7.5	5.5	10.5	9.0	11.5	8.5	13.5	11.5	19.0	16.0	---	---
5	7.0	5.0	9.5	7.5	11.0	9.0	12.5	11.0	19.5	16.0	---	---
6	6.5	5.5	7.5	6.0	10.5	8.5	13.5	11.0	20.0	16.5	---	---
7	7.5	5.0	9.0	6.0	10.5	8.0	14.0	11.5	19.5	17.0	---	---
8	6.5	4.0	10.0	7.0	11.0	9.0	13.5	12.0	19.5	16.5	---	---
9	7.0	3.5	11.0	8.5	11.0	9.0	14.5	12.0	19.0	17.5	---	---
10	6.0	4.0	11.0	8.5	11.0	8.5	15.0	11.0	17.5	16.0	16.0	14.0
11	10.0	5.5	10.5	8.5	11.5	9.0	15.0	12.0	16.5	15.0	15.5	14.0
12	11.5	8.5	9.5	8.0	11.0	9.0	16.0	12.0	17.0	15.0	14.5	13.0
13	11.5	8.0	8.0	6.5	10.5	9.0	15.5	13.0	17.5	15.0	13.5	11.5
14	11.5	8.0	8.5	5.5	11.0	8.5	17.0	13.0	18.5	15.5	11.5	10.0
15	10.5	7.5	10.5	6.5	10.0	8.5	16.5	13.0	19.0	16.0	12.5	10.0
16	9.5	7.5	11.0	8.5	12.0	9.0	17.0	13.0	19.5	17.0	14.5	11.0
17	9.0	5.0	12.0	8.5	11.0	10.0	16.5	14.0	18.5	17.0	15.5	12.5
18	9.5	6.0	11.0	9.0	11.0	9.5	17.5	13.5	19.0	17.0	14.5	12.5
19	8.5	5.5	11.0	9.5	11.0	8.5	18.0	14.0	19.5	17.0	15.0	12.5
20	6.0	3.5	11.5	9.0	12.0	8.5	18.5	14.0	20.0	17.0	14.5	12.0
21	7.5	2.5	13.0	9.0	11.5	10.0	18.5	15.0	19.0	18.0	15.0	12.0
22	10.0	4.0	13.0	10.0	12.0	10.0	19.5	15.0	18.0	17.0	15.5	12.0
23	9.5	6.5	12.0	10.5	12.0	9.5	19.0	15.5	17.5	15.5	16.0	13.0
24	11.5	8.0	11.0	9.0	12.0	9.0	18.5	15.0	19.0	16.5	15.5	13.0
25	11.0	8.5	11.0	8.5	11.5	10.0	19.5	15.0	17.5	15.5	15.0	13.0
26	10.0	8.0	12.5	8.0	11.5	9.5	19.0	16.0	17.0	14.5	14.5	12.0
27	9.5	8.0	11.5	10.0	13.0	10.0	19.0	16.0	17.0	15.0	13.5	12.0
28	10.5	7.0	11.5	9.5	13.5	10.5	18.0	16.5	17.5	15.5	12.0	10.0
29	10.0	8.5	10.5	9.0	13.5	10.5	17.0	15.5	18.5	16.0	11.5	9.0
30	11.5	7.5	9.5	8.5	12.5	10.5	18.5	15.0	17.5	15.5	11.5	9.5
31	---	---	11.5	8.0	---	---	19.0	15.0	---	---	---	---
MONTH	11.5	2.5	13.0	5.5	13.5	8.0	19.5	10.0	20.0	14.5	16.0	9.0
YEAR	20.0	.0										

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO
(Irrigation Network Station)

LOCATION.--Lat 39°34'12", long 107°13'34", Garfield County, Hydrologic Unit 14010001, at Shoshone power plant, 6 mi (10 km) upstream from Glenwood Springs, and 5.5 mi (10.5 km) upstream from Roaring Fork River.

DRAINAGE AREA.--4,560 mi² (11,810 km²), approximately.

PERIOD OF RECORD.--October 1941 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1941 to current year.
WATER TEMPERATURES: May 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Discharge obtained by subtracting the flow in Roaring Fork River at Glenwood Springs (station 09085000) from the flow in Colorado River below Glenwood Springs (station 09085100). Daily maximum and minimum specific-conductance data available in district office. Water-quality data for the 1981 water year will be published in this report.

COOPERATION.--Additional chemical data supplied by U.S. Bureau of Reclamation (noted by an asterisk in the water year heading).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 2460 micromhos July 12, 1981; minimum, 150 micromhos May 31, 1982.
WATER TEMPERATURES: Maximum, 25.5°C July 8, 1981; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,340 micromhos Dec. 25; minimum, 150 micromhos May 31.
WATER TEMPERATURES: Maximum 20.0°C Aug. 20; minimum, 0.0°C many days during winter months.

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

* WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT										
03...	--	1150	713	713	8.2	12.0	196	59	12	66
10...	1210	1340	700	703	7.9	11.5	192	58	12	68
15...	1545	1100	605	715	8.2	10.0	206	62	13	68
23...	1120	1460	680	677	8.1	7.0	204	61	13	61
28...	0900	1470	680	683	8.0	4.5	198	59	12	62
NOV										
04...	0930	1350	700	705	8.2	5.5	198	59	12	67
14...	--	1200	670	713	8.1	6.0	198	58	13	64
21...	1030	990	790	801	7.7	.0	218	65	14	81
24...	1605	900	780	767	8.1	1.5	200	59	13	78
DEC										
04...	1015	1190	685	720	7.7	2.5	186	56	11	71
11...	1000	901	790	776	8.2	.5	198	59	12	86
17...	1540	1160	760	747	7.9	.0	200	60	12	78
24...	1145	995	690	709	8.0	.5	184	54	12	75
31...	1000	1060	650	698	8.0	.0	190	56	12	72
JAN										
08...	1250	902	730	766	8.0	.0	192	58	12	79
16...	1400	855	820	816	8.0	1.0	204	61	13	90
21...	1630	800	900	920	8.2	2.0	218	65	13	106
29...	1640	760	840	822	7.9	1.0	205	61	13	94
FEB										
06...	1200	868	850	1010	8.0	1.0	235	70	15	116
13...	1515	844	790	888	8.1	.5	216	64	14	99
20...	1245	357	700	777	7.9	2.5	196	59	12	87
25...	1730	704	770	809	8.4	2.2	190	57	12	90
MAR										
06...	1120	833	820	825	8.0	5.5	202	60	13	92
13...	1120	774	820	884	8.1	5.5	212	62	14	94
18...	0915	758	850	829	8.0	4.5	206	61	13	93
25...	1050	694	810	846	8.0	.0	210	62	14	94
APR										
01...	1200	601	830	868	8.3	5.5	210	62	13	98
10...	0930	820	840	741	8.6	9.5	172	47	13	85
17...	1000	1250	520	516	8.2	10.5	150	45	9.3	50
23...	1730	1180	540	572	8.3	12.0	148	44	9.3	56
30...	1140	1760	480	433	7.7	13.0	128	38	7.8	44
MAY										
06...	1405	1770	429	410	8.2	10.9	126	38	7.8	34
15...	1305	1320	540	538	8.1	11.0	148	45	8.8	49
21...	1730	1440	520	538	8.0	11.5	156	47	9.3	45
30...	1030	2940	360	367	9.1	14.0	120	36	7.4	27
JUN										
03...	0850	3460	335	333	8.4	14.5	112	34	6.8	22
12...	0925	3700	300	295	9.1	14.5	98	30	5.9	21
18...	1440	1650	565	540	8.1	14.5	158	47	9.8	48
26...	1015	1420	610	612	8.0	18.5	168	50	10	57
JUL										
01...	1010	1350	620	610	8.5	20.0	200	63	10	52
10...	1115	1400	740	710	8.2	20.0	216	64	14	62
16...	1230	1310	770	704	8.0	21.5	240	76	12	58
22...	1400	1140	710	686	8.1	20.0	224	69	13	63
31...	1115	1230	570	610	7.8	18.0	190	58	11	54
AUG										
05...	1930	1280	660	572	8.2	21.5	172	53	9.8	55
12...	1550	1500	540	524	8.0	16.0	158	49	8.8	45
21...	1400	1310	560	527	7.9	16.5	150	46	8.8	49
28...	0800	1400	530	509	8.4	15.5	150	45	9.3	46
SEP										
04...	0930	1350	560	516	8.0	16.5	148	45	8.8	48
11...	1025	1500	590	554	8.1	17.0	168	51	9.8	47
18...	1300	1170	610	574	8.2	15.0	162	49	9.8	56
25...	0910	1240	590	565	8.0	15.5	156	47	9.3	54

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

* WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT										
03...	2.1	3.0	128	.00	105	110	92	435	.59	1350
10...	2.2	4.0	129	.00	--	104	92	422	.57	1530
15...	2.1	3.0	134	.00	--	108	94	444	.60	1320
23...	1.9	3.0	137	.00	--	114	91	417	.57	1640
28...	2.0	3.0	134	.00	--	112	89	421	.57	1670
NOV										
04...	2.2	3.0	134	.00	--	110	92	432	.59	1570
14...	2.1	3.0	134	.00	--	112	91	413	.56	1340
21...	2.5	3.0	144	.00	--	110	116	478	.65	1280
24...	2.5	3.0	137	.00	--	100	115	455	.62	1110
DEC										
04...	2.3	3.0	132	.00	--	98	102	435	.59	1400
11...	2.8	3.0	139	.00	--	100	123	462	.63	1120
17...	2.5	3.0	135	.00	--	106	114	492	.67	1540
24...	2.5	3.0	125	.00	--	100	107	416	.57	1120
31...	2.4	3.0	131	.00	--	100	101	404	.55	1160
JAN										
08...	2.6	3.0	131	.00	--	100	117	443	.60	1080
16...	2.9	4.0	140	.00	--	100	133	492	.67	1140
21...	3.2	4.0	143	.00	--	117	154	545	.74	1180
29...	3.0	4.0	137	.00	--	110	137	501	.68	1030
FEB										
06...	3.4	4.0	156	.00	--	127	170	603	.82	1410
13...	3.1	3.0	146	.00	--	118	144	532	.72	1210
20...	2.8	3.0	134	.00	--	108	130	480	.65	463
25...	3.0	3.0	110	11	--	104	130	474	.64	901
MAR										
06...	2.9	4.0	142	.00	--	110	133	490	.67	1100
13...	2.9	4.0	140	.00	--	116	133	506	.69	1060
18...	2.9	4.0	139	.00	--	124	131	500	.68	1020
25...	2.9	4.0	139	.00	--	116	133	503	.68	943
APR										
01...	3.0	4.0	108	17	--	106	137	518	.70	841
10...	2.9	4.0	69	8.0	--	102	121	440	.60	974
17...	1.8	3.0	110	.00	--	77	73	317	.43	1070
23...	2.1	3.0	115	3.0	--	68	82	330	.45	1050
30...	1.8	2.0	103	.00	--	51	64	263	.36	1250
MAY										
06...	1.4	2.0	95	.00	--	57	46	246	.33	1180
15...	1.8	2.0	113	.00	--	67	67	318	.43	1130
21...	1.6	2.0	116	.00	--	69	60	317	.43	1230
30...	1.1	2.0	73	14	--	49	32	202	.27	1600
JUN										
03...	.9	2.0	91	4.0	--	39	25	177	.24	1650
12...	.9	1.0	84	.00	--	38	24	160	.22	1600
18...	1.7	2.0	140	.00	--	67	68	311	.42	1390
26...	2.0	2.0	124	.00	--	73	82	337	.46	1290

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
JUL									
01...	1.7	3.0	116	.00	105	68	369	.50	1350
10...	1.9	3.0	160	.00	109	83	413	.56	1560
16...	1.7	3.0	149	.00	126	85	434	.59	1540
22...	1.9	3.0	151	.00	104	91	416	.57	1280
31...	1.8	3.0	127	.00	87	82	357	.49	1190
AUG									
05...	1.9	3.0	130	.00	79	82	345	.47	1190
12...	1.6	2.0	113	.00	73	67	301	.41	1220
21...	1.8	3.0	112	.00	66	73	300	.41	1060
28...	1.7	3.0	96	6.0	73	69	298	.41	1130
SEP									
04...	1.8	3.0	110	.00	71	71	300	.41	1090
11...	1.6	3.0	115	.00	88	70	325	.44	1320
18...	2.0	3.0	117	.00	83	80	337	.46	1060
25...	2.0	3.0	115	.00	73	82	324	.44	1080

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

* WATER-QUALITY RECORDS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT									
01...	1100	1030	670	615	13.0	166	50	10	61
08...	1430	1120	670	609	11.5	169	51	10	60
16...	1405	1100	680	639	9.5	188	57	11	64
22...	1215	970	720	681	8.5	206	61	13	68
29...	0915	990	680	651	6.5	185	56	11	65
NOV									
05...	1100	1350	750	730	5.0	194	58	12	68
11...	1545	840	800	678	3.5	194	58	12	74
27...	1400	750	800	731	1.0	199	60	12	78
DEC									
02...	1805	600	850	816	.0	213	64	13	92
10...	1240	1050	700	763	.0	218	66	13	80
17...	1210	420	760	806	.0	199	60	12	81
24...	1000	590	950	1020	.0	230	69	14	110
30...	0930	1100	820	810	.0	221	67	13	90
JAN									
07...	1450	630	920	812	.0	216	65	13	94
14...	1230	820	650	688	.0	199	60	12	74
21...	1115	--	700	675	.0	192	57	12	75
29...	1500	--	720	760	.0	181	56	10	75
FEB									
04...	1200	650	790	830	.0	189	59	10	83
12...	1220	595	750	790	.0	184	57	10	78
18...	1330	--	710	682	.0	174	53	10	75
24...	1805	--	730	674	1.0	180	54	11	72
MAR									
04...	--	--	700	662	2.0	183	55	11	66
11...	1200	--	750	720	3.5	156	41	13	74
18...	1330	1050	760	790	.0	212	60	15	70
25...	1130	790	800	760	6.0	190	53	14	84
APR									
01...	1240	870	790	840	5.0	230	64	17	78
09...	1400	970	700	810	4.5	198	58	13	72
13...	0850	1300	660	500	6.0	184	54	12	25
23...	0900	1390	690	600	8.0	170	50	11	52
MAY									
07...	1145	3250	325	370	5.5	127	38	7.7	20
13...	1620	3370	350	350	7.0	124	37	7.7	20
21...	0800	3250	380	420	9.0	144	43	8.8	25
28...	1035	5210	290	310	10.5	119	35	7.7	15
JUN									
04...	1100	5540	270	300	10.0	111	33	7.0	15
09...	1405	5850	260	280	10.0	104	30	7.0	14
18...	1035	6360	260	290	11.0	106	31	7.0	15
22...	1700	6310	260	280	12.0	106	31	7.0	17
JUL									
02...	1330	5600	260	280	12.0	109	32	7.0	15
08...	1210	4600	320	335	13.5	120	35	8.0	20

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
JUL										
16...	1200	3030	380	440	14.0	154	45	10	31	1.1
22...	0900	2340	460	470	16.5	147	44	9.0	33	1.2
30...	0830	2630	450	490	16.0	147	44	9.0	28	1.0
AUG										
05...	--	2520	500	520	16.5	159	47	10	38	1.4
12...	0745	1900	490	480	15.5	134	39	9.0	37	1.4
16...	1235	2240	430	450	18.0	135	41	8.0	32	1.2
26...	1000	2120	450	480	14.5	138	42	8.0	36	1.4
SEP										
03...	1010	1540	560	570	15.5	166	50	10	47	1.7
09...	1330	1470	540	570	14.0	166	50	10	45	1.6
16...	1400	3200	750	580	13.0	175	52	11	45	1.5
24...	1100	1430	540	580	14.0	169	51	10	51	1.8
30...	1115	1600	530	570	10.0	169	51	10	45	1.6

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

*WATER-QUALITY RECORDS, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
01...	2.1	3.0	120	.00	81	92	355	.48	987
08...	2.1	3.0	120	4.0	82	90	358	.49	1080
16...	2.1	3.0	130	.00	88	92	381	.52	1130
22...	2.1	2.0	140	.00	110	96	416	.57	1090
29...	2.2	2.0	130	.00	87	97	384	.52	1030
NOV									
05...	2.2	2.0	140	.00	100	100	420	.57	1530
11...	2.4	2.0	110	4.0	88	100	396	.54	898
27...	2.5	2.0	130	6.0	98	115	435	.59	881
DEC									
02...	2.9	3.0	150	.00	110	130	489	.67	792
10...	2.5	2.0	140	.00	100	120	456	.62	1290
17...	2.6	2.0	140	.00	97	120	444	.60	503
24...	3.3	3.0	100	26	64	170	509	.69	811
30...	2.7	2.0	110	19	60	150	452	.61	1340
JAN									
07...	2.9	3.0	110	16	120	140	502	.68	854
14...	2.4	2.0	83	30	110	110	439	.60	972
21...	2.5	2.0	77	29	100	110	427	.58	--
29...	2.5	2.0	130	.00	56	120	378	.51	--
FEB									
04...	2.7	2.0	130	.00	87	130	440	.60	772
12...	2.6	2.0	90	22	88	120	425	.58	683
18...	2.6	3.0	110	7.0	96	110	411	.56	--
24...	2.4	3.0	120	.00	97	110	405	.55	--
MAR									
04...	2.2	3.0	100	10	100	98	395	.54	--
11...	2.7	3.0	84	.00	110	120	400	.54	--
18...	2.2	3.0	96	17	120	96	430	.58	1220
25...	2.7	3.0	110	7.0	130	110	450	.61	960
APR									
01...	2.3	3.0	120	11	130	110	470	.64	1100
09...	2.3	4.0	130	.00	100	110	420	.57	1100
13...	.8	3.0	110	10	97	28	280	.38	983
23...	1.8	3.0	120	.00	87	71	330	.45	1240
MAY									
07...	.8	6.0	110	.00	48	27	200	.27	1750
13...	.8	5.0	69	16	47	26	190	.26	1730
21...	.9	4.0	120	4.0	71	27	240	.33	2110
28...	.6	3.0	110	2.0	43	16	170	.23	2390
JUN									
04...	.6	2.0	100	.00	37	16	160	.22	2390
09...	.6	2.0	93	.00	30	13	140	.19	2210
18...	.7	2.0	96	.00	37	13	150	.20	2580
22...	.7	2.0	93	.00	36	15	150	.20	2560
JUL									
02...	.7	2.0	90	2.0	35	13	150	.20	2270
08...	.8	2.0	100	.00	37	20	170	.23	2200

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
JUL									
16...	.8	120	.60	--	64	35	240	.33	1960
22...	.4	120	2.0	--	66	42	250	.34	1580
30...	1.7	--	--	97	69	36	250	.34	1780
AUG									
05...	2.3	--	--	100	68	49	280	.38	1910
12...	1.9	--	--	85	63	48	250	.34	1280
18...	1.9	--	--	92	60	41	240	.33	1450
26...	2.3	--	--	90	62	46	250	.34	1430
SEP									
03...	2.9	--	--	110	70	66	310	.42	1290
09...	2.4	--	--	110	73	61	310	.42	1230
16...	2.3	--	--	100	88	55	320	.44	2760
24...	3.0	--	--	100	74	66	320	.44	1240
30...	2.0	--	--	110	71	64	310	.42	1340

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	670	696	792	708	743	718	804	463	267	268	483	620
2	683	708	838	736	746	696	775	407	266	276	482	598
3	684	718	825	778	782	693	744	365	261	287	488	532
4	681	727	742	838	790	---	738	330	268	292	495	549
5	666	733	755	834	865	---	771	309	249	293	508	556
6	640	732	780	784	974	---	753	316	243	327	513	564
7	642	726	773	820	955	---	748	340	---	309	517	510
8	664	718	758	914	895	---	743	366	---	333	501	525
9	674	711	740	931	842	---	740	374	---	---	490	501
10	685	705	770	888	777	---	725	361	---	330	494	511
11	711	708	768	798	748	---	716	352	249	---	493	540
12	708	724	742	733	757	743	703	350	249	356	493	554
13	710	729	743	710	787	711	667	353	---	410	527	509
14	700	732	763	713	786	717	610	377	---	418	476	523
15	699	728	758	726	746	746	565	405	---	397	444	521
16	693	721	---	708	693	726	---	428	---	424	445	538
17	696	722	---	701	694	728	---	427	---	396	442	526
18	690	728	805	696	695	762	---	419	---	395	437	520
19	695	745	---	694	712	769	---	406	---	379	450	534
20	706	752	811	689	725	778	---	389	---	403	554	566
21	726	775	713	701	735	778	---	377	290	442	460	561
22	724	772	729	739	720	812	---	369	275	444	450	553
23	695	764	775	784	709	798	---	345	285	469	444	536
24	707	759	---	830	705	798	542	314	272	479	450	546
25	720	772	1210	830	708	800	491	284	280	486	455	558
26	707	782	1060	736	722	788	476	255	268	490	460	567
27	701	806	904	668	719	772	470	298	271	769	462	562
28	700	818	853	695	722	758	463	280	279	539	558	554
29	679	814	843	730	---	766	472	217	271	450	551	517
30	666	774	777	760	---	741	472	168	273	450	559	522
31	673	---	704	748	---	753	---	205	---	476	579	---
MEAN	690	743	805	762	766	754	645	344	268	406	489	542

WTR YR 1982 MEAN 606 MAX 1210 MIN 168

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	5.0	4.0	.5	.0	.0	.0	.5	.0	3.5	1.5
2	17.0	15.0	5.0	4.0	.0	.0	.0	.0	.5	.0	3.5	2.0
3	15.0	14.5	5.5	4.5	.0	.0	.0	.0	.0	.0	3.5	2.5
4	15.5	14.0	5.5	4.5	.0	.0	.0	.0	.0	.0	---	---
5	15.0	13.0	5.5	4.5	.5	.0	.0	.0	.0	.0	---	---
6	15.5	13.5	5.0	4.0	1.0	.0	.0	.0	.0	.0	---	---
7	15.5	14.0	5.5	4.5	1.0	.0	1.0	.0	.0	.0	---	---
8	15.5	14.0	6.0	5.0	1.0	.0	.0	.0	.0	.0	---	---
9	15.0	13.0	5.5	4.5	.5	.0	.0	.0	.0	.0	---	---
10	15.0	13.0	5.5	4.0	.5	.0	.0	.0	.0	.0	---	---
11	15.0	13.0	4.5	3.5	1.5	.0	.0	.0	.0	.0	---	---
12	13.0	12.0	4.0	3.0	2.0	1.0	.0	.0	.0	.0	6.0	4.5
13	14.5	12.0	4.5	3.5	1.5	1.0	.0	.0	.0	.0	6.5	4.5
14	14.5	13.0	4.5	4.0	1.0	.0	.0	.0	.0	.0	6.5	5.5
15	14.5	12.5	6.0	4.5	---	---	.0	.0	.0	.0	6.5	5.5
16	12.5	11.5	6.0	4.5	---	---	.0	.0	.5	.0	7.0	5.5
17	12.0	10.5	5.5	4.5	---	---	.0	.0	1.0	.0	7.0	6.0
18	12.0	11.0	5.0	3.5	.0	.0	.0	.0	1.5	.0	6.5	6.0
19	12.0	10.5	3.5	2.5	.5	.0	.0	.0	1.5	.0	6.5	4.5
20	11.5	10.0	3.0	1.5	1.5	.5	.0	.0	2.0	.0	4.5	3.0
21	11.5	10.0	3.0	2.0	1.5	1.0	.0	.0	2.0	.0	4.5	3.0
22	11.5	9.5	3.5	2.5	1.0	.5	.0	.0	2.0	.0	4.5	2.5
23	10.5	9.0	4.0	3.0	.5	.0	.0	.0	2.0	.5	5.0	3.5
24	10.0	9.0	4.0	3.0	.0	.0	.0	.0	2.0	.0	6.0	4.5
25	9.5	8.0	4.5	3.0	.0	.0	.0	.0	2.5	.5	7.5	5.5
26	9.0	8.0	3.0	1.5	.0	.0	.0	.0	2.5	.5	7.5	6.5
27	10.0	8.5	1.5	.5	.0	.0	.0	.0	3.0	1.0	8.0	6.5
28	10.0	8.5	1.0	.5	.0	.0	.0	.0	3.5	2.0	9.0	7.0
29	8.5	5.5	1.0	.5	.0	.0	.5	.0	---	---	8.5	6.0
30	6.0	5.0	.5	.0	.0	.0	.0	.0	---	---	6.0	4.0
31	5.0	4.0	---	---	.0	.0	.5	.0	---	---	5.5	3.5
MONTH	17.0	4.0	6.0	.0	2.0	.0	1.0	.0	3.5	.0	9.0	1.5

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	5.0	12.0	10.0	11.0	10.0	14.0	12.5	19.5	16.5	17.5	15.0
2	6.0	4.5	12.0	9.5	11.0	9.5	14.0	12.0	19.0	17.5	17.5	15.5
3	7.0	5.5	12.0	10.0	11.0	10.0	14.5	12.0	19.0	17.0	17.5	16.0
4	7.0	6.5	10.5	9.5	11.5	9.0	14.5	12.5	18.5	17.0	17.0	15.0
5	7.0	5.5	9.0	7.0	11.0	9.5	14.0	12.5	19.5	17.0	16.5	15.5
6	6.5	5.5	7.5	5.5	11.0	9.0	14.0	12.0	19.5	17.5	16.0	14.5
7	6.0	5.0	6.0	5.5	11.0	8.5	14.5	12.5	19.5	18.0	16.0	14.0
8	6.0	4.5	9.5	7.0	11.0	9.5	14.5	13.0	19.5	17.5	15.5	14.0
9	6.0	4.5	10.5	8.5	11.5	9.0	15.0	13.0	19.0	17.5	16.0	13.5
10	7.0	5.0	10.5	8.5	11.5	9.5	15.0	12.0	18.0	16.0	16.0	14.5
11	9.0	6.5	10.5	8.5	12.0	9.5	15.0	13.0	17.0	15.0	15.5	14.5
12	11.0	9.0	10.0	8.5	11.5	10.0	16.0	13.0	17.0	15.5	15.0	13.5
13	11.0	9.0	8.5	7.0	11.0	10.0	15.5	13.5	17.0	15.5	14.0	11.5
14	11.0	8.5	8.0	6.0	11.5	9.5	17.0	14.0	18.0	15.5	11.5	10.0
15	10.5	8.5	9.5	6.5	11.0	9.5	16.5	14.0	18.5	16.0	12.0	10.0
16	---	---	10.5	8.0	12.0	9.5	16.5	14.0	19.5	17.0	14.0	11.5
17	---	---	11.5	8.5	12.0	11.0	16.5	14.5	19.0	17.5	15.0	13.0
18	---	---	11.5	9.5	11.0	10.5	17.5	14.5	18.5	17.0	15.0	13.5
19	---	---	10.5	9.5	11.5	9.5	18.0	15.0	19.5	17.5	15.0	13.0
20	---	---	11.0	9.5	12.5	9.5	18.5	15.0	20.0	17.0	14.5	13.0
21	---	---	12.0	9.0	12.5	11.0	18.5	16.0	19.5	18.0	14.5	13.0
22	---	---	12.5	10.0	12.5	10.5	19.5	16.5	18.5	17.0	15.0	13.0
23	---	---	12.5	11.0	12.5	11.0	19.5	16.5	17.5	16.0	15.0	13.5
24	11.0	8.0	11.0	9.5	12.5	10.5	18.5	16.5	18.5	16.5	15.0	13.5
25	10.5	9.0	11.0	8.5	12.5	11.5	19.0	16.0	18.5	16.0	14.5	13.5
26	10.5	8.5	12.0	9.0	12.0	11.0	19.0	17.0	16.5	15.0	13.5	12.5
27	9.5	8.0	12.0	10.0	13.5	11.0	19.0	17.0	16.5	15.0	13.5	12.5
28	10.0	7.0	12.0	10.0	14.0	12.0	19.0	17.0	17.0	15.5	12.5	10.0
29	10.0	8.5	11.0	9.5	14.0	12.0	17.5	16.0	18.5	16.0	11.0	10.0
30	11.0	8.0	10.0	9.0	13.5	12.0	18.5	15.5	18.0	16.0	11.0	10.0
31	---	---	11.5	8.5	---	---	19.0	16.0	17.5	15.5	---	---
MONTH	11.0	4.5	12.5	5.5	14.0	8.5	19.5	12.0	20.0	15.0	17.5	10.0
YEAR	20.0	.0										

GRIZZLY CREEK BASIN

09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°43'00", long 107°18'35", in NE¼SW¼ sec.7, T.4 S., R.88 W., Garfield County, Hydrologic Unit 14010001, on left bank 0.5 mi (0.8 km) west of Grizzly Cow Camp and 14 mi (23 km) north of Glenwood Springs.

DRAINAGE AREA.--5.73 mi² (14.84 km²).

PERIOD OF RECORD.--September 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,435 ft (3,181 m) revised, from topographic map. Prior to Oct. 19, 1978, at site 600 ft (183 m) upstream at datum 25.33 ft (7.72 m) higher (revised).

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 12.7 ft³/s (0.360 m³/s) 9,200 acre-ft/yr (11.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 200 ft³/s (5.66 m³/s) June 15, 1978; maximum gage height observed, 8.63 ft (2.630 m) May 4, 1982 (backwater from ice); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 169 ft³/s (4.79 m³/s) date unknown, gage height, 4.53 ft (1.381 m), from outside high water mark, maximum gage height observed, 8.63 ft (2.630 m) May 4, (backwater from ice); minimum daily, 0.62 ft³/s (0.018 m³/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	4.8	3.1	.70	.75	.82	.82	26	120	85	5.4	2.0
2	2.5	4.6	2.9	.64	.74	.87	.81	35	130	72	4.8	2.1
3	3.7	4.4	2.7	.64	.72	.90	.77	48	120	58	5.7	2.1
4	4.2	4.4	2.5	.64	.74	.86	.76	52	135	47	4.7	1.8
5	4.1	4.2	2.2	.65	.74	.80	.76	46	133	40	4.4	2.2
6	3.7	4.1	2.0	.65	.77	.77	.76	41	130	33	4.4	2.1
7	4.2	4.2	1.9	.64	.72	.80	.76	37	150	27	4.1	2.1
8	4.6	4.2	1.8	.62	.72	.81	.78	35	160	25	3.9	2.1
9	4.6	4.1	1.7	.64	.74	.81	.81	35	163	26	3.7	2.1
10	4.6	4.1	1.7	.66	.74	.81	.85	33	165	22	3.5	2.1
11	5.3	4.0	1.6	.68	.72	.86	1.0	30	168	19	3.6	2.7
12	6.0	3.9	1.6	.70	.72	.91	1.5	28	169	17	4.1	2.6
13	5.8	3.9	1.6	.70	.74	.87	2.5	25	160	14	3.7	2.5
14	5.8	3.8	1.6	.72	.76	.86	3.7	23	150	13	3.6	2.7
15	5.5	3.7	1.7	.72	.74	.86	8.0	21	140	11	3.4	3.2
16	6.4	3.6	1.6	.72	.72	.86	9.4	21	150	10	2.8	3.7
17	6.0	3.6	1.6	.72	.70	.86	9.4	22	160	10	2.7	3.6
18	5.5	3.5	1.5	.72	.70	.86	9.8	25	160	9.2	2.7	3.1
19	5.5	3.5	1.4	.72	.72	.81	9.7	29	150	8.5	2.8	2.9
20	5.8	3.3	1.2	.72	.72	.80	9.5	31	150	6.9	2.7	3.4
21	5.8	3.2	1.1	.72	.76	.76	9.2	38	140	5.1	3.1	3.3
22	5.3	3.4	.97	.72	.76	.76	9.4	47	145	6.9	2.9	3.0
23	5.3	3.4	.89	.73	.76	.76	9.5	64	140	6.2	3.1	2.8
24	5.5	3.3	.76	.74	.76	.76	10	92	125	5.8	2.8	2.7
25	5.3	3.2	.71	.74	.76	.78	12	120	125	5.8	2.5	2.6
26	5.1	3.0	.74	.75	.76	.80	13	160	125	6.0	2.5	3.0
27	5.1	3.0	.76	.74	.80	.80	13	165	121	9.4	2.5	4.3
28	5.1	3.3	.77	.72	.82	.76	14	147	116	8.9	2.5	5.2
29	5.3	3.4	.78	.74	---	.80	15	130	106	7.3	2.5	5.3
30	5.1	3.3	.76	.74	---	.78	18	120	90	7.2	2.2	5.4
31	4.6	---	.74	.75	---	.80	---	117	---	5.3	2.0	---
TOTAL	153.5	112.4	46.88	21.69	20.80	25.36	195.48	1843	4196	627.5	105.3	88.7
MEAN	4.95	3.75	1.51	.70	.74	.82	6.52	59.5	140	20.2	3.40	2.96
MAX	6.4	4.8	3.1	.75	.82	.91	18	165	169	85	5.7	5.4
MIN	2.2	3.0	.71	.62	.70	.76	.76	21	90	5.1	2.0	1.8
AC-FT	304	223	93	43	41	50	388	3660	8320	1240	209	176

CAL YR 1981 TOTAL 3325.19 MEAN 9.11 MAX 149 MIN .00 AC-FT 6600
WTR YR 1982 TOTAL 7436.61 MEAN 20.4 MAX 169 MIN .62 AC-FT 14750

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO JUNE 22.

09072550 ROARING FORK RIVER ABOVE LOST MAN CREEK, NEAR ASPEN, CO

LOCATION.--Lat 39°07'13", long 106°37'27", Pitkin County, Hydrologic Unit 14010004, on right bank 300 ft (91 m) upstream from Lost Man campground, 600 ft (183 m) downstream from diversion dam, 1,000 ft (305 m) upstream from Lost Man Creek, and 12 mi (19 km) southeast of Aspen.

DRAINAGE AREA.--9.10 mi² (23.6 km²).

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,520 ft (3,206 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Diversions from Lost Man Creek via canal into diversion dam, 600 ft (183 m) upstream, which also diverts some of the Roaring Fork River, via tunnel, to Grizzly Reservoir on Lincoln Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 87 ft³/s (2.46 m³/s) June 10, 1981, gage height, 2.84 ft (0.866 m); no flow many days each year.

EXTREMES FOR CURRENT PERIOD.--Water year 1981: Maximum discharge, 87 ft³/s (2.46 m³/s) at 1800 June 10, gage height, 2.84 ft (0.866 m); no flow many days.

Water year 1982: Maximum discharge, 83 ft³/s (2.35 m³/s) at 1030 June 16, gage height, 2.72 ft (0.829 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.6	.03	.03	.00	.00	.00	.06	.06	.04	.00	.00
2	3.0	2.4	.03	.03	.00	.00	.00	.07	.07	.04	.00	.00
3	3.0	2.2	.03	.04	.00	.00	.00	.06	.08	.04	.00	.00
4	2.8	2.2	.03	.03	.00	.00	.00	.04	.08	.04	.00	.00
5	2.8	2.1	.03	.03	.00	.00	.00	.05	5.5	.04	.00	.00
6	2.8	2.2	.03	.03	.00	.00	.00	.06	7.5	.03	.00	.00
7	2.8	2.2	.03	.03	.00	.00	.00	.05	13	.03	.00	.00
8	2.8	2.1	.03	.03	.00	.00	.01	.03	18	.03	.00	.00
9	2.8	2.1	.03	.03	.00	.00	.01	.03	22	.03	.00	.00
10	2.8	1.9	.03	.03	.00	.00	.02	.04	30	.04	.00	.00
11	2.8	1.9	.04	.03	.00	.00	.05	.05	28	.03	.00	.00
12	2.8	2.2	.04	.03	.00	.00	.05	.04	12	.04	.00	.00
13	2.8	2.5	.04	.03	.00	.00	.03	.04	.10	.04	.00	.00
14	4.4	2.2	.04	.03	.00	.00	.03	.04	.07	.03	.00	.00
15	3.2	2.0	.04	.03	.00	.00	.05	.07	.06	.03	.00	.00
16	2.8	2.0	.04	.03	.00	.00	.04	.06	.07	.03	.00	.00
17	2.9	2.2	.04	.02	.00	.00	.04	.05	.07	.03	.00	.00
18	3.0	2.0	.03	.01	.00	.00	.05	.05	.05	.04	.00	.00
19	3.2	1.3	.03	.01	.00	.00	.05	.07	.04	.03	.00	.00
20	7.5	.70	.03	.01	.00	.00	.04	.07	.04	.02	.00	.00
21	2.4	.30	.03	.01	.00	.00	.04	.05	.04	.01	.00	.00
22	2.4	.10	.03	.01	.00	.00	.03	.04	.04	.00	.00	3.4
23	2.1	.04	.03	.01	.00	.00	.03	.04	.04	.00	.00	8.2
24	2.2	.03	.03	.01	.00	.00	.02	.05	.04	.00	.00	8.0
25	2.0	.03	.03	.01	.00	.00	.05	.06	.04	.00	.00	7.8
26	2.4	.03	.03	.01	.00	.00	.06	.06	.04	.00	.00	7.6
27	2.6	.03	.03	.01	.00	.00	.06	.07	.04	.00	.00	7.6
28	2.6	.03	.04	.01	.00	.00	.05	.07	.04	.00	.00	3.4
29	2.8	.03	.04	.01	---	.00	.06	.07	.04	.00	.00	.00
30	2.8	.03	.04	.00	---	.00	.06	.06	.04	.00	.00	.00
31	2.8	---	.04	.00	---	.00	---	.07	---	.00	.00	---
TOTAL	91.1	41.65	1.04	.63	.00	.00	.93	1.67	137.19	.69	.00	46.00
MEAN	2.94	1.39	.034	.020	.000	.000	.031	.054	4.57	.022	.000	1.53
MAX	7.5	2.6	.04	.04	.00	.00	.06	.07	30	.04	.00	8.2
MIN	2.0	.03	.03	.00	.00	.00	.00	.03	.04	.00	.00	.00
AC-FT	181	83	2.1	1.2	.00	.00	1.8	3.3	272	1.4	.00	91

WTR YR 1981 TOTAL 320.90 MEAN .88 MAX 30 MIN .00 AC-FT 637

NOTE.--NO GAGE-HEIGHT RECORD DEC. 12 TO JUNE 9.

09072550 ROARING FORK RIVER ABOVE LOST MAN CREEK, NEAR ASPEN, CO

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.11	13	7.8	7.8
2	.00	.00	.00	.00	.00	.00	.00	.00	.11	4.3	7.8	7.8
3	.00	.00	.00	.00	.00	.00	.00	.00	.11	1.6	7.8	7.8
4	.00	.00	.00	.00	.00	.00	.00	.00	.11	.12	7.8	7.8
5	.00	.00	.00	.00	.00	.00	.00	.00	.12	.09	7.8	7.8
6	.00	.00	.00	.00	.00	.00	.00	.00	.12	.09	7.8	7.8
7	.00	.00	.00	.00	.00	.00	.00	.00	.12	.09	7.8	7.8
8	.00	.00	.00	.00	.00	.00	.00	.00	.12	.10	7.8	7.8
9	.00	.00	.00	.00	.00	.00	.00	.00	.13	.10	7.8	7.8
10	.00	4.6	.00	.00	.00	.00	.00	.00	.14	.10	7.8	7.8
11	.00	11	.00	.00	.00	.00	.00	.00	.15	.10	7.8	7.8
12	.00	11	.00	.00	.00	.00	.00	.00	.15	.10	7.8	7.8
13	.00	5.5	.00	.00	.00	.00	.00	.00	.15	.10	7.8	7.8
14	.00	1.0	.00	.00	.00	.00	.00	.00	.15	.10	7.8	7.8
15	.00	.50	.00	.00	.00	.00	.00	.00	.15	.10	7.8	7.8
16	.00	.40	.00	.00	.00	.00	.00	.00	6.6	.09	7.8	7.8
17	.00	.30	.00	.00	.00	.00	.00	.00	1.5	.09	7.8	7.8
18	.00	.20	.00	.00	.00	.00	.00	.00	1.6	.09	7.8	7.8
19	.00	.10	.00	.00	.00	.00	.00	.01	.13	.09	7.8	7.8
20	.00	.10	.00	.00	.00	.00	.00	.02	.11	.09	7.8	7.8
21	.00	.00	.00	.00	.00	.00	.00	.03	.12	.09	7.8	7.8
22	.00	.00	.00	.00	.00	.00	.00	.04	.13	4.4	7.8	7.8
23	.00	.00	.00	.00	.00	.00	.00	.07	6.4	8.0	7.8	7.8
24	.00	.00	.00	.00	.00	.00	.00	.07	7.4	8.2	7.8	7.8
25	.00	.00	.00	.00	.00	.00	.00	.07	5.4	8.2	7.8	7.8
26	.00	.00	.00	.00	.00	.00	.00	.07	7.3	8.0	7.8	7.8
27	.00	.00	.00	.00	.00	.00	.00	.07	19	7.6	7.8	7.8
28	.00	.00	.00	.00	.00	.00	.00	.08	28	7.8	7.8	7.8
29	.00	.00	.00	.00	---	.00	.00	.11	21	7.8	7.8	7.8
30	.00	.00	.00	.00	---	.00	.00	.11	12	7.8	7.8	12
31	.00	---	.00	.00	---	.00	---	.11	---	7.8	7.8	---
TOTAL	.00	34.70	.00	.00	.00	.00	.00	.86	118.63	96.23	241.8	238.2
MEAN	.000	1.16	.000	.000	.000	.000	.000	.028	3.95	3.10	7.80	7.94
MAX	.00	11	.00	.00	.00	.00	.00	.11	28	13	7.8	12
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.11	.09	7.8	7.8
AC-FT	.00	69	.00	.00	.00	.00	.00	1.7	235	191	480	472

CAL YR 1981 TOTAL 221.81 MEAN .61 MAX 30 MIN .00 AC-FT 440
WTR YR 1982 TOTAL 730.42 MEAN 2.00 MAX 28 MIN .00 AC-FT 1450

NOTE.--NO GAGE-HEIGHT RECORD NOV. 11 TO MAY 18, JULY 30 TO SEPT. 9.

09073005 LINCOLN CREEK BELOW GRIZZLY RESERVOIR NEAR ASPEN, CO

LOCATION.--Lat 39°04'48", long 106°36'37", Pitkin County, Hydrologic Unit 14010004, on right bank 170 ft (52 m) below centerline of Grizzly Reservoir Dam and 13.6 mi (21.9 km) southeast of Aspen.

DRAINAGE AREA.--15.2 mi² (39.4 km²).

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,150 ft (3,203 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s (1.16 m³/s) July 29, 1981; gage height, 2.14 ft (0.652 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Oct. 18, 20, 21, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft³/s (0.37 m³/s) at 0700 July 29, gage height, 1.54 ft (0.469 m); minimum daily, 0.20 ft³/s (0.006 m³/s) Oct. 18, 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25	.48	.65	.65	.60	.55	.60	.60	.94	.60	12	11
2	.25	.60	.65	.65	.60	.55	.60	.60	.94	.60	12	11
3	.25	.60	.65	.65	.60	.55	.60	.60	.94	.60	12	11
4	.25	.60	.70	.65	.60	.55	.60	.60	.82	.48	11	11
5	.25	.48	.70	.65	.60	.55	.60	.60	.94	.48	12	11
6	.25	.60	.70	.65	.60	.55	.55	.60	.82	.48	12	11
7	.25	.48	.65	.65	.60	.55	.55	.60	.71	.48	12	11
8	.25	.48	.65	.65	.60	.60	.55	.60	.71	.48	12	11
9	.36	.48	.65	.65	.60	.60	.55	.60	.60	.60	12	11
10	.36	.60	.65	.65	.60	.60	.55	.60	.60	.60	12	12
11	.36	.71	.65	.65	.55	.60	.55	.60	.48	.71	12	12
12	.48	.71	.65	.65	.55	.60	.55	.60	.48	.71	12	12
13	.48	.71	.65	.65	.55	.60	.60	.60	.48	.71	12	12
14	.48	.71	.65	.65	.55	.60	.60	.60	.48	.71	12	12
15	.36	.71	.65	.65	.55	.60	.60	.60	.48	.60	12	12
16	.36	.71	.65	.65	.55	.60	.60	.60	.48	.71	12	12
17	.25	.71	.65	.60	.55	.55	.55	.60	.48	.71	12	12
18	.20	.60	.65	.60	.55	.55	.55	.60	.60	.71	12	12
19	.25	.60	.65	.60	.55	.55	.55	.60	.60	.71	12	12
20	.20	.71	.65	.60	.55	.55	.55	.60	.60	.71	12	11
21	.20	.71	.65	.60	.60	.55	.55	.60	.60	.71	12	12
22	.25	.70	.65	.60	.60	.55	.55	.82	.60	6.7	12	12
23	.25	.65	.65	.60	.60	.60	.55	1.2	.60	12	12	12
24	.25	.65	.65	.65	.60	.60	.55	.82	.60	12	12	12
25	.25	.65	.65	.65	.55	.60	.60	.60	.71	12	12	12
26	.36	.65	.65	.65	.55	.60	.60	.48	.71	12	12	12
27	.25	.65	.65	.65	.55	.60	.60	.60	.71	12	12	11
28	.36	.65	.65	.65	.55	.60	.60	.60	.71	12	11	11
29	.36	.65	.65	.65	---	.60	.60	.82	.71	13	11	11
30	.48	.65	.65	.65	---	.60	.60	.94	.60	12	11	6.1
31	.48	---	.65	.60	---	.60	---	.94	---	12	11	---
TOTAL	9.63	18.89	20.30	19.75	16.10	17.95	17.25	20.42	19.73	128.80	367	341.1
MEAN	.31	.63	.65	.64	.58	.58	.58	.66	.66	4.15	11.8	11.4
MAX	.48	.71	.70	.65	.60	.60	.60	1.2	.94	13	12	12
MIN	.20	.48	.65	.60	.55	.55	.55	.48	.48	.48	11	6.1
AC-FT	19	37	40	39	32	36	34	41	39	255	728	677

CAL YR 1981 TOTAL 528.46 MEAN 1.45 MAX 30 MIN .20 AC-FT 1050
WTR YR 1982 TOTAL 996.92 MEAN 2.73 MAX 13 MIN .20 AC-FT 1980

NOTE.--NO GAGE-HEIGHT RECORD NOV. 22 TO MAY 18.

09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°08'23", long 106°46'25", Pitkin County, Hydrologic Unit 14010004, on left bank in the White River National Forest at Difficult Creek Campground, 0.45 mi (0.72 km) above Difficult Creek tributary and 4.25 mi (6.83 km) southeast of Aspen.

DRAINAGE AREA.--75.8 mi^2 (195 km^2).

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,120 ft (2,475 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion 11 mi (18 km) upstream through Twin Lakes Tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft^3/s (38.8 m^3/s) June 19, 1980, gage height, 4.01 ft (1.222 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Jan. 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 538 ft^3/s (15.2 m^3/s) at 2100 June 28, gage height, 3.20 ft (0.975 m); minimum daily, 9.5 ft^3/s (0.27 m^3/s) Mar. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	16	15	11	11	11	66	199	272	89	47
2	12	14	16	14	11	11	11	82	202	264	85	45
3	12	15	16	13	11	11	11	128	192	248	82	45
4	12	15	17	13	11	11	11	133	185	240	79	44
5	12	19	17	13	11	11	12	144	196	170	75	46
6	13	18	16	13	10	11	12	152	185	158	74	49
7	15	20	16	13	10	11	12	128	176	136	75	48
8	15	20	16	13	10	11	12	87	185	142	71	48
9	16	20	16	13	10	11	12	85	196	139	69	49
10	17	20	16	14	10	11	12	85	216	131	68	49
11	17	20	16	14	10	11	12	85	210	126	66	49
12	18	20	16	14	11	11	15	87	213	126	66	53
13	19	19	15	13	11	10	16	87	224	126	69	56
14	19	18	15	13	11	10	22	72	206	119	72	59
15	18	18	15	13	11	10	26	65	196	112	66	59
16	20	17	15	13	11	10	28	68	188	105	60	59
17	19	17	15	13	11	10	26	65	206	97	56	59
18	18	15	15	13	11	10	30	57	232	89	56	57
19	18	14	15	13	12	10	32	55	196	85	56	54
20	18	12	16	13	12	10	31	57	196	82	56	59
21	21	14	16	12	12	10	31	65	213	83	57	64
22	18	15	15	12	12	9.5	30	77	224	89	61	56
23	15	16	14	12	12	10	32	93	224	93	54	52
24	20	16	14	12	12	10	32	107	260	89	53	52
25	18	18	14	12	11	11	32	112	248	87	52	50
26	17	17	14	12	11	11	32	99	256	85	56	50
27	18	16	14	12	11	11	32	133	284	87	52	52
28	16	16	14	12	11	11	33	167	315	105	50	52
29	16	16	15	13	---	11	40	196	272	119	49	52
30	16	16	15	13	---	11	44	199	264	107	48	53
31	14	---	15	12	---	12	---	188	---	97	48	---
TOTAL	509	504	475	400	308	329.5	692	3224	6559	4008	1970	1567
MEAN	16.4	16.8	15.3	12.9	11.0	10.6	23.1	104	219	129	63.5	52.2
MAX	21	20	17	15	12	12	44	199	315	272	89	64
MIN	12	12	14	12	10	9.5	11	55	176	82	48	44
AC-FT	1010	1000	942	793	611	654	1370	6390	13010	7950	3910	3110

CAL YR 1981 TOTAL 12862.0 MEAN 35.2 MAX 390 MIN 8.8 AC-FT 25510
WTR YR 1982 TOTAL 20545.5 MEAN 56.3 MAX 315 MIN 9.5 AC-FT 40750

09073400 ROARING FORK RIVER NEAR ASPEN, CO

LOCATION.--Lat 39°10'48", long 106°48'05", Pitkin County, Hydrologic Unit 14010004, on right bank 25 ft (8 m) upstream from private bridge, 115 ft (35 m) upstream from Salvation ditch headgate, 1.0 mi (1.6 km) southeast of Aspen, and 2.0 mi (3.2 km) upstream from Hunter Creek.

DRAINAGE AREA.--108 mi^2 (280 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,014.01 ft (2,442.670 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 25, 1968, at site 85 ft (26 m) upstream at datum 1.16 ft (0.354 m) higher.

REMARKS.--Records good except those for period of no gage-height record and winter period, which are fair. Transmountain diversion 14 mi (23 km) upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 138 ft^3/s (3.908 m^3/s), 99,980 acre-ft/yr (123 hm^3/yr), including diversion by Twin Lakes tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,310 ft^3/s (37.1 m^3/s) July 1, 1965, gage height, 5.20 ft (1.585 m), site and datum then in use, from rating curve extended above 770 ft^3/s (22 m^3/s); minimum daily, 12 ft^3/s (0.34 m^3/s) Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 616 ft^3/s (17.4 m^3/s) at 0200 June 29, gage height, 2.93 ft (0.893 m); minimum daily, 20 ft^3/s (0.57 m^3/s) Dec. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	29	26	26	26	23	26	74	282	450	117	72
2	26	29	26	26	25	23	26	100	290	413	112	65
3	27	28	26	26	24	23	24	120	267	370	110	63
4	28	28	27	23	25	23	25	140	259	352	99	63
5	28	28	27	26	24	23	25	160	313	319	93	67
6	29	29	27	26	25	24	25	120	305	309	88	82
7	30	28	26	28	23	23	25	100	285	275	100	82
8	30	27	26	27	24	25	24	90	317	262	94	81
9	32	26	26	28	25	25	24	98	336	260	94	69
10	32	24	26	29	25	25	23	110	357	246	94	62
11	32	26	25	29	24	25	24	110	366	237	92	63
12	32	27	26	30	24	26	30	115	375	225	80	82
13	32	28	26	30	24	24	34	115	396	220	93	82
14	32	30	27	28	24	25	37	100	370	203	101	87
15	32	29	25	27	24	25	42	90	372	196	97	82
16	40	29	25	26	23	25	45	86	363	177	84	88
17	35	27	25	26	23	24	39	82	399	165	84	85
18	34	28	20	25	23	24	40	88	458	155	83	74
19	33	26	28	26	23	25	41	90	413	145	75	74
20	33	25	27	25	23	25	37	95	378	138	75	86
21	32	27	24	25	24	24	32	104	393	130	83	100
22	32	27	27	24	24	26	33	132	414	128	87	82
23	30	26	26	25	24	25	36	150	415	141	84	79
24	32	26	27	26	24	25	38	157	474	135	80	76
25	30	26	25	26	23	27	42	163	451	133	76	73
26	30	24	25	26	23	26	48	160	448	134	90	73
27	32	23	25	27	24	26	50	222	465	137	81	73
28	30	26	25	28	24	26	49	233	513	138	75	74
29	30	26	26	27	---	27	56	276	516	176	74	75
30	30	26	26	26	---	25	58	281	477	144	74	78
31	29	---	26	25	---	22	---	280	---	130	74	---
TOTAL	960	808	799	822	671	764	1058	4241	11467	6643	2743	2292
MEAN	31.0	26.9	25.8	26.5	24.0	24.6	35.3	137	382	214	88.5	76.4
MAX	40	30	28	30	26	27	58	281	516	450	117	100
MIN	26	23	20	23	23	22	23	74	259	128	74	62
AC-FT	1900	1600	1580	1630	1330	1520	2100	8410	22740	13180	5440	4550

CAL YR 1981 TOTAL 22031 MEAN 60.4 MAX 482 MIN 19 AC-FT 43700
WTR YR 1982 TOTAL 33268 MEAN 91.1 MAX 516 MIN 20 AC-FT 65990

NOTE.--NO GAGE-HEIGHT RECORD MAR. 30 TO MAY 18.

09073720 HUNTER CREEK FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°12'28", long 106°40'41", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 95 ft (29 m) downstream from diversion point on Hunter Creek, and 8.3 mi (13.4 km) east of Aspen, and 0.9 mi (1.4 km) above confluence with Midway Creek.

PERIOD OF RECORD.--April 1980 to current year.

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,177.00 ft (3,101.950 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 103 ft³/s (2.92 m³/s) June 28, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	40	99	13	
2								---	38	84	12	
3								.99	31	77	12	
4								7.6	28	74	10	
5								12	46	66	8.1	
6								8.5	45	58	6.5	
7								.09	45	48	5.5	
8								.00	55	45	4.6	
9								.00	61	50	4.8	
10								.00	70	42	5.3	
11								.00	71	49	3.3	
12								.00	73	50	4.6	
13								.00	70	44	7.8	
14								.00	66	41	8.4	
15								.37	58	41	4.4	
16								.00	61	36	2.4	
17								.00	87	34	1.6	
18								.00	94	31	4.1	
19								.00	62	30	1.9	
20								.00	60	31	1.3	
21								.00	75	27	2.6	
22								2.0	81	24	2.2	
23								8.6	79	22	1.4	
24								9.9	93	20	---	
25								8.1	90	19	---	
26								9.3	88	18	---	
27								27	97	20	---	
28								33	103	23	---	
29								40	102	41	---	
30								33	98	22	---	
31								30	---	17	---	
TOTAL								---	2067	1283	---	
MEAN								---	68.9	41.4	---	
MAX								---	103	99	---	
MIN								---	28	17	---	
AC-FT								---	4100	2540	---	

09073790 MIDWAY CREEK FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°11'25", long 106°41'04", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 80 ft (24 m) downstream from diversion point on Midway Creek, and 8.3 mi (13.4 km) east of Aspen, and 0.8 mi (1.3 km) upstream from mouth.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,186.20 ft (3,104.754 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 98 ft³/s (2.78 m³/s) June 18, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								1.6	47	70	12	
2								4.7	48	63	11	
3								11	42	60	9.8	
4								12	44	56	9.6	
5								9.6	57	55	7.3	
6								3.3	57	52	6.2	
7								1.1	59	47	6.2	
8								.62	67	45	5.0	
9								1.8	72	47	6.0	
10								4.1	78	44	5.0	
11								4.8	77	44	4.0	
12								2.8	79	43	5.3	
13								1.4	77	41	7.7	
14								.52	73	38	8.0	
15								.09	67	36	4.6	
16								.04	72	32	3.5	
17								.24	87	30	3.1	
18								1.4	98	27	3.3	
19								1.6	75	25	2.2	
20								.99	72	24	2.0	
21								2.8	82	22	5.5	
22								7.9	85	22	5.3	
23								13	84	21	3.6	
24								14	91	18	---	
25								12	90	18	---	
26								16	89	17	---	
27								26	94	18	---	
28								33	95	20	---	
29								40	88	27	---	
30								38	79	18	---	
31								39	---	14	---	
TOTAL								305.40	2225	1094	---	
MEAN								9.85	74.2	35.3	---	
MAX								40	98	70	---	
MIN								.04	42	14	---	
AC-FT								606	4410	2170	---	

09073890 NO NAME FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°10'58", long 106°43'10", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 80 ft (24 m) downstream from diversion point on No Name Creek, and 5.5 mi (8.8 km) southeast of Aspen, and 0.9 mi (1.4 km) upstream from mouth.

PERIOD OF RECORD.--May 1980 to current year.

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,165.50 ft (3,098.444 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 66 ft³/s (1.87 m³/s) June 18, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	34	45	.62	
2								---	35	37	.24	
3								1.7	31	33	.24	
4								4.4	32	31	.00	
5								3.3	43	27	.00	
6								.62	40	25	.00	
7								.09	36	20	.00	
8								.09	47	18	.00	
9								.41	47	19	.00	
10								2.0	48	16	.00	
11								3.3	51	15	.00	
12								2.0	54	14	.29	
13								1.1	54	13	.43	
14								.32	53	12	.65	
15								.09	47	10	.00	
16								.04	50	8.4	.00	
17								.09	58	7.5	.00	
18								.99	66	6.5	.00	
19								.62	52	5.5	.00	
20								.24	51	4.6	.00	
21								1.2	55	4.0	1.2	
22								5.0	53	5.2	1.7	
23								8.1	53	5.3	.00	
24								8.9	54	4.0	---	
25								8.1	50	4.4	---	
26								10	49	4.2	---	
27								19	52	4.2	---	
28								24	54	3.2	---	
29								32	52	7.4	---	
30								30	48	3.5	---	
31								28	---	1.7	---	
TOTAL								---	1449	414.6	---	
MEAN								---	48.3	13.4	---	
MAX								---	66	45	---	
MIN								---	31	1.7	---	
AC-FT								---	2870	822	---	

09074000 HUNTER CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°12'21", long 106°47'49", Pitkin County, Hydrologic Unit 14010004, on right bank 280 ft (85 m) upstream from headgate of Red Mountain ditch, 1.5 mi (2.4 km) upstream from mouth, and 1.5 mi (2.4 km) northeast of Aspen.

DRAINAGE AREA.--41.1 mi^2 (106.4 km^2).

PERIOD OF RECORD.--June 1950 to September 1956, September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,610 ft (2,624 m), from topographic map. Prior to Sept. 1, 1969, at site 220 ft (67 m) downstream at different datum.

REMARKS.--Records fair except those for winter period and those for periods of no gage-height record, which are poor. Several small diversions above station for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years (water years 1951-1956, 1970-1982), 47.6 ft^3/s (1.348 m^3/s), 34,490 acre-ft/yr (42.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft^3/s (28.6 m^3/s) June 13, 1953, gage height, 7.02 ft (2.140 m), site and datum then in use, from rating curve extended above 580 ft^3/s (16 m^3/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 242 ft^3/s (6.85 m^3/s) at 0230 June 18, gage height, 1.84 ft (0.561 m), no peak above base of 450 ft^3/s (13 m^3/s); minimum daily, 4.6 ft^3/s (0.13 m^3/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	9.0	5.0	7.0	7.0	6.2	59	158	113	34	22
2	12	14	8.0	5.0	7.0	7.5	6.2	87	154	87	32	20
3	15	13	9.0	5.0	6.5	7.5	6.0	109	150	77	32	18
4	16	13	8.5	5.0	6.5	7.5	6.2	116	150	70	32	18
5	16	13	8.5	5.0	6.5	7.0	6.2	106	147	63	34	25
6	17	13	8.5	4.8	6.5	7.0	6.2	80	140	52	34	32
7	16	13	8.5	4.6	6.5	7.0	6.2	63	137	47	32	23
8	16	13	8.5	4.8	6.5	7.0	5.5	52	147	44	32	22
9	16	13	8.0	4.8	6.5	7.0	6.0	61	154	44	32	20
10	17	12	7.5	5.0	7.0	7.0	6.0	77	168	44	31	18
11	17	12	7.5	5.0	6.5	7.0	6.2	77	161	42	32	19
12	16	12	7.5	5.0	6.5	7.5	7.4	74	175	41	32	41
13	16	11	7.5	5.0	6.5	7.5	8.0	65	154	39	32	41
14	16	11	7.5	5.0	7.0	7.0	10	50	144	38	31	36
15	16	11	7.5	5.5	7.0	7.0	12	44	133	38	31	31
16	17	11	7.5	5.5	6.5	7.0	12	44	133	36	32	29
17	18	11	7.5	5.5	6.5	7.0	13	44	147	35	31	23
18	17	11	6.5	5.5	6.5	7.0	13	52	214	35	31	22
19	17	10	7.0	5.5	6.5	7.0	14	59	164	35	31	22
20	18	10	7.5	5.5	6.5	6.5	14	61	120	34	31	26
21	18	10	8.0	6.0	6.5	6.5	14	63	120	34	31	30
22	18	10	8.0	6.0	7.0	6.0	14	100	120	35	31	21
23	18	9.5	7.0	6.5	7.0	6.0	17	126	109	35	32	20
24	17	9.6	5.5	7.0	7.0	6.0	22	116	109	34	32	20
25	17	9.5	5.5	7.0	7.0	6.5	21	106	90	34	31	22
26	16	8.5	6.0	7.0	6.5	6.5	21	120	87	35	56	22
27	16	8.5	6.0	7.0	6.5	6.5	21	154	100	35	35	24
28	16	9.0	6.0	7.0	7.0	6.5	22	144	106	36	30	24
29	16	9.5	6.0	7.0	---	6.5	28	154	103	41	28	24
30	15	9.5	6.0	7.0	---	6.5	32	140	103	38	26	22
31	15	---	5.5	7.0	---	6.0	---	140	---	35	25	---
TOTAL	503	334.6	227.0	176.5	187.0	211.5	382.3	2743	4097	1406	996	737
MEAN	16.2	11.2	7.32	5.69	6.68	6.82	12.7	88.5	137	45.4	32.1	24.6
MAX	18	14	9.0	7.0	7.0	7.5	32	154	214	113	56	41
MIN	12	8.5	5.5	4.6	6.5	6.0	5.5	44	87	34	25	18
AC-FT	998	664	450	350	371	420	758	5440	8130	2790	1980	1460

CAL YR 1981 TOTAL 11283.6 MEAN 30.9 MAX 416 MIN 2.2 AC-FT 22380
WTR YR 1982 TOTAL 12000.9 MEAN 32.9 MAX 214 MIN 4.6 AC-FT 23800

NOTE.--NO GAGE-HEIGHT RECORD OCT. 16 TO NOV. 23, FEB. 12 TO MAR. 29.

ROARING FORK RIVER BASIN

09074800 CASTLE CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°05'15", long 106°48'42", Pitkin County, Hydrologic Unit 14010004, on right bank 0.4 mi (0.6 km) downstream from Forest Service bridge, 0.4 mi (0.6 km) upstream from Sandy Creek, and 7 mi (11 km) south of Aspen.

DRAINAGE AREA.--32.2 mi² (83.4 km²).

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,100 ft (2,774 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 38.8 ft³/s (1.099 m³/s), 28,110 acre-ft/yr (34.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 428 ft³/s (12.1 m³/s) June 14, 1973, gage height, 3.75 ft (1.143 m); maximum gage height, 3.88 ft (1.183 m) June 23, 1970; minimum daily discharge, 6.0 ft³/s (0.17 m³/s) Jan. 7, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 23	2300	----	----	*3.05	0.930	July 28	2300	226	6.40	2.83	0.863
July 1	2200	*290	8.21	3.04	0.927						

Minimum daily discharge, 6.0 ft³/s (0.17 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	14	11	6.5	9.5	9.5	8.5	21	101	252	92	35
2	16	14	11	6.5	9.3	10	8.6	27	107	230	88	34
3	17	14	12	6.5	9.0	11	8.9	47	105	208	85	32
4	16	13	11	6.5	9.3	10	8.8	61	110	201	77	33
5	16	14	11	6.5	9.0	9.5	8.9	60	122	181	71	43
6	16	13	11	6.5	10	9.0	8.8	44	116	162	67	39
7	15	14	11	6.0	8.5	9.5	9.0	38	114	150	64	35
8	16	13	11	6.5	8.5	9.5	9.2	38	126	144	61	35
9	16	13	10	6.5	9.5	9.5	9.0	38	136	154	60	34
10	15	13	10	6.5	9.5	9.5	9.4	38	153	149	59	43
11	15	13	9.5	7.0	8.5	9.5	9.5	38	164	155	56	39
12	15	13	9.5	7.0	8.5	11	11	37	199	151	70	47
13	15	13	9.5	6.5	9.5	10	10	36	215	147	74	45
14	15	13	9.5	7.0	9.5	10	11	32	184	149	73	41
15	16	13	10	7.0	9.5	10	11	31	182	144	63	40
16	16	13	9.5	7.0	8.5	10	11	31	167	136	56	39
17	15	13	9.5	7.0	8.5	10	11	31	195	132	55	41
18	15	13	8.0	7.5	8.5	10	11	34	205	128	59	41
19	15	12	10	8.0	8.5	9.5	11	37	165	120	54	40
20	15	12	10	8.5	8.5	9.0	11	38	159	114	53	51
21	14	13	10	8.5	9.0	8.5	11	43	187	116	52	49
22	14	13	10	9.0	9.0	8.5	12	56	210	118	50	46
23	14	13	8.0	9.5	9.0	8.5	12	67	244	119	47	45
24	14	12	7.0	9.5	9.0	8.5	12	74	244	110	43	44
25	14	12	7.5	9.5	9.0	8.5	13	72	240	111	43	40
26	14	11	8.0	9.5	9.0	9.0	14	71	226	105	46	42
27	14	12	7.5	9.6	9.5	9.0	14	85	226	103	42	45
28	14	12	8.0	9.6	9.5	8.5	15	92	248	135	40	42
29	14	13	8.0	9.6	---	9.0	16	104	243	153	39	39
30	14	12	8.0	9.5	---	8.5	18	107	237	143	38	38
31	14	---	7.0	9.5	---	8.5	---	99	---	103	36	---
TOTAL	465	386	293.0	240.3	253.1	291.0	333.6	1627	5330	4523	1813	1217
MEAN	15.0	12.9	9.45	7.75	9.04	9.39	11.1	52.5	178	146	58.5	40.6
MAX	17	14	12	9.6	10	11	18	107	248	252	92	51
MIN	14	11	7.0	6.0	8.5	8.5	8.5	21	101	103	36	32
AC-FT	922	766	581	477	502	577	662	3230	10570	8970	3600	2410

CAL YR 1981 TOTAL 10619.6 MEAN 29.1 MAX 226 MIN 7.0 AC-FT 21060
WTR YR 1982 TOTAL 16772.0 MEAN 46.0 MAX 252 MIN 6.0 AC-FT 33270

NOTE.--NO GAGE-HEIGHT RECORD NOV. 25 TO JAN. 25, FEB. 5 TO MAR. 31.

09075700 MAROON CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°07'25", long 106°54'17", Pitkin County, Hydrologic Unit 14010004, on left bank 0.3 mi (0.5 km) upstream from Silver Queen Forest Service campground, 1.2 mi (1.9 km) downstream from confluence of East and West Maroon Creeks, and 7.2 mi (11.6 km) southwest of Aspen.

DRAINAGE AREA.--35.4 mi^2 (91.7 km^2).

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,720 ft (2,658 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Natural regulation by Maroon Lake. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 60.7 ft^3/s (1.719 m^3/s), 43,980 acre-ft/yr (54.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 836 ft^3/s (23.7 m^3/s) June 22, 1980, gage height, 3.39 ft (1.046 m), from rating curve extended above 350 ft^3/s (9.9 m^3/s); maximum gage height, 4.53 ft (1.381 m) Feb. 3, 1972 (backwater from ice); minimum daily discharge, 9.0 ft^3/s (0.25 m^3/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 372 ft^3/s (10.5 m^3/s) at 2400 June 22, gage height, 2.95 ft (0.899 m), only peak above base of 250 ft^3/s (7.1 m^3/s); minimum daily, 10 ft^3/s (0.28 m^3/s) Jan. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	29	21	11	18	19	12	25	124	351	206	76
2	36	29	20	11	18	18	12	28	134	260	206	74
3	35	29	20	11	18	17	12	31	148	291	192	73
4	35	28	19	10	18	17	12	34	148	317	178	71
5	35	27	19	10	18	17	12	38	162	304	170	73
6	35	27	19	11	18	15	12	41	162	260	162	71
7	35	27	19	11	18	15	12	42	162	243	154	67
8	35	27	19	11	18	15	12	38	170	232	151	64
9	35	26	19	11	18	17	12	38	174	248	144	64
10	34	26	20	11	18	17	14	41	174	238	140	62
11	34	25	21	11	18	17	14	41	188	226	137	62
12	34	25	22	11	18	16	14	42	201	232	137	67
13	34	24	21	11	18	15	14	42	206	238	130	69
14	34	24	20	12	16	14	14	40	210	238	130	65
15	34	24	19	12	15	14	15	40	216	248	124	62
16	34	24	23	11	16	14	15	40	210	248	121	62
17	34	23	22	12	17	14	15	40	216	254	115	62
18	32	23	22	13	18	13	16	41	238	248	112	64
19	32	23	20	14	20	13	16	41	238	243	112	62
20	32	23	15	14	20	12	16	41	238	238	106	64
21	32	23	14	14	20	12	18	44	272	238	103	65
22	32	22	14	15	20	13	16	46	284	238	100	64
23	31	22	14	16	20	13	16	50	260	238	96	65
24	30	22	14	17	20	14	17	62	291	238	93	65
25	30	22	13	18	20	13	19	64	304	232	93	67
26	30	22	14	17	20	13	20	60	317	226	93	69
27	30	22	13	18	20	13	20	67	330	226	89	73
28	30	21	12	18	20	12	20	78	291	221	87	73
29	30	21	11	18	---	12	22	98	304	221	82	71
30	30	21	11	18	---	12	23	109	324	221	80	71
31	29	---	11	18	---	12	---	112	---	210	78	---
TOTAL	1019	731	541	416	516	448	462	1554	6696	7666	3921	2017
MEAN	32.9	24.4	17.5	13.4	18.4	14.5	15.4	50.1	223	247	126	67.2
MAX	36	29	23	18	20	19	23	112	330	351	206	76
MIN	29	21	11	10	15	12	12	25	124	210	78	62
AC-FT	2020	1450	1070	825	1020	889	916	3080	13280	15210	7780	4000

CAL YR 1981 TOTAL 16123 MEAN 44.2 MAX 348 MIN 11 AC-FT 31980
WTR YR 1982 TOTAL 25987 MEAN 71.2 MAX 351 MIN 10 AC-FT 51550

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO MAR. 30.

ROARING FORK RIVER BASIN

09076520 OWL CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°13'25", long 106°52'45", in NE¼SE¼ sec.33, T.9 S., R.85 W., Pitkin County, Hydrologic Unit 14010004, on left bank 1.2 mi (1.9 km) upstream from mouth and 3.8 mi (6.1 km) northwest of Aspen.

DRAINAGE AREA.--6.60 mi^2 (17.09 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder with V-notch concrete control. Altitude of gage is 7,870 ft (2,399 m), from topographic map.

REMARKS.--Records poor. Several small diversions above station for irrigation of hay meadows. Water imported above station, at times, from West Willow Creek through Willow and Owl ditches. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 2.22 ft^3/s (0.0629 m^3/s), 1,610 acre-ft/yr (1.99 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft^3/s (1.19 m^3/s) May 25, 1979, gage height, 1.82 ft (0.555 m); maximum gage height, 1.99 ft (0.607 m) May 4, 1982; no flow Feb. 9 to Mar. 6, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35 ft^3/s (0.99 m^3/s) at 2130 May 4, gage height, 1.99 ft (0.607 m); minimum daily, 0.21 ft^3/s (0.006 m^3/s) Nov. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.55	.29	.34	.40	.68	1.4	18	22	3.0	2.5	.38
2	.45	.55	.28	.34	.40	.70	1.3	21	19	2.8	2.2	.35
3	.55	.45	.27	.34	.40	.65	1.2	24	16	2.0	1.9	.35
4	.75	.43	.26	.34	.40	.60	1.1	28	12	2.0	1.5	.75
5	1.0	.43	.27	.33	.40	.56	1.1	34	12	2.1	1.2	.88
6	.68	.40	.26	.32	.40	.58	1.2	27	13	3.0	1.0	.45
7	.45	.40	.26	.31	.39	.51	1.6	24	14	3.7	.90	.43
8	.45	.45	.26	.30	.39	.48	1.4	23	12	4.1	.92	.40
9	.55	.45	.26	.32	.39	.41	1.2	22	12	4.2	.89	.45
10	.55	.40	.27	.34	.39	.44	1.6	23	12	3.3	.85	.48
11	.43	.35	.26	.35	.39	.50	2.6	23	11	2.6	.84	1.8
12	.48	.35	.26	.36	.38	.61	6.4	22	10	3.7	.84	1.2
13	.55	.32	.25	.36	.37	.52	6.8	19	9.2	3.9	.85	1.2
14	.61	.30	.26	.36	.36	.80	7.0	20	8.1	2.6	1.0	.88
15	.43	.32	.26	.37	.36	.93	7.9	18	7.3	4.6	.92	.75
16	.75	.30	.26	.38	.36	.83	6.4	15	6.6	3.4	.78	.55
17	.61	.27	.26	.39	.36	.76	5.1	15	5.4	3.7	.68	.55
18	.45	.27	.26	.41	.36	.54	5.3	16	6.6	4.2	.78	.55
19	.40	.25	.26	.41	.36	.54	5.1	17	4.6	3.6	.68	.55
20	.35	.25	.27	.41	.37	.58	4.6	18	4.1	3.3	.50	1.2
21	.32	.22	.29	.40	.38	.56	4.2	18	4.1	3.0	.42	.88
22	.32	.22	.29	.40	.45	.62	4.4	22	4.2	3.1	.37	.75
23	.32	.22	.28	.40	.50	.62	4.9	24	4.8	3.0	.36	.75
24	.35	.25	.29	.39	.54	.60	5.9	25	4.1	3.1	.37	.68
25	.38	.21	.29	.40	.56	.65	6.6	23	3.7	3.3	.43	.68
26	.40	.25	.30	.40	.59	.92	9.6	22	4.1	2.9	.55	.68
27	.43	.28	.30	.43	.56	1.3	11	26	3.9	3.0	.45	.75
28	.45	.30	.31	.45	.51	1.6	11	26	3.7	3.7	.45	.95
29	.45	.30	.31	.45	---	1.6	14	28	3.6	3.6	.45	.88
30	.61	.30	.32	.43	---	1.4	15	28	3.3	3.4	.45	.88
31	.48	---	.33	.43	---	1.3	---	26	---	3.0	.43	---
TOTAL	15.45	10.04	8.59	11.66	11.72	23.39	156.9	695	256.4	100.9	26.46	22.03
MEAN	.50	.33	.28	.38	.42	.75	5.23	22.4	8.55	3.25	.85	.73
MAX	1.0	.55	.33	.45	.59	1.6	15	34	22	4.6	2.5	1.8
MIN	.32	.21	.25	.30	.36	.41	1.1	15	3.3	2.0	.36	.35
AC-FT	31	20	17	23	23	46	311	1380	509	200	52	44

CAL YR 1981 TOTAL 466.47 MEAN 1.28 MAX 13 MIN .11 AC-FT 925
WTR YR 1982 TOTAL 1338.54 MEAN 3.67 MAX 34 MIN .21 AC-FT 2650

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO JAN. 26.

09077150 FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'42", long 106°31'47", Pitkin County, Hydrologic Unit 14010004, on right bank 210 ft (64 m) downstream from diversion point on Fryingpan River and 9.1 mi (14.6 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,955.91 ft (3,034.561 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period of no gage-height record July 30 to Aug. 1, which are fair. This is a transmountain diversion from Marten Creek and Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 269 ft³/s (7.62 m³/s) June 15, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	7.7	107	189	64	.00
2	.00	.00	.00	.00	.00	.00	.00	11	106	172	48	.00
3	.00	.00	.00	.00	.00	.00	.00	19	92	159	44	.00
4	.00	.00	.00	.00	.00	.00	.00	24	87	146	35	.00
5	.00	.00	.00	.00	.00	.00	.00	21	104	132	30	.00
6	.00	.00	.00	.00	.00	.00	.00	15	105	119	28	.00
7	.00	.00	.00	.00	.00	.00	.00	6.8	108	104	27	.00
8	.00	.00	.00	.00	.00	.00	.00	6.0	118	103	18	.00
9	.00	.00	.00	.00	.00	.00	.00	8.7	126	106	15	.00
10	.00	.00	.00	.00	.00	.00	.00	14	136	99	12	.00
11	.00	.00	.00	.00	.00	.00	.00	14	140	99	11	.00
12	.00	.00	.00	.00	.00	.00	.00	12	147	97	16	.00
13	.00	.00	.00	.00	.00	.00	.00	7.4	145	94	19	.00
14	.00	.00	.00	.00	.00	.00	.00	4.8	141	96	27	.00
15	.00	.00	.00	.00	.00	.00	.00	3.5	133	95	24	.00
16	.00	.00	.00	.00	.00	.00	.00	2.6	134	88	14	.00
17	.00	.00	.00	.00	.00	.00	.00	2.7	156	75	8.8	.00
18	.00	.00	.00	.00	.00	.00	.00	5.2	169	60	3.7	.00
19	.00	.00	.00	.00	.00	.00	.00	8.0	133	53	3.0	.00
20	.00	.00	.00	.00	.00	.00	.00	9.0	121	51	6.5	.00
21	.00	.00	.00	.00	.00	.00	.00	15	146	49	9.4	.00
22	.00	.00	.00	.00	.00	.00	.00	25	161	46	13	.00
23	.00	.00	.00	.00	.00	.00	.00	34	157	46	10	.00
24	.00	.00	.00	.00	.00	.00	.00	43	174	47	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	42	176	44	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	51	167	43	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	72	177	43	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	92	197	68	.00	.00
29	.00	.00	.00	.00	---	.00	.00	102	197	85	.00	.00
30	.00	.00	.00	.00	---	.00	2.3	102	192	76	.00	.00
31	.00	---	.00	.00	---	.00	---	101	---	67	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	2.30	881.4	4252	2751	486.40	.00
MEAN	.000	.000	.000	.000	.000	.000	.077	28.4	142	88.7	15.7	.000
MAX	.00	.00	.00	.00	.00	.00	2.3	102	197	189	64	.00
MIN	.00	.00	.00	.00	.00	.00	.00	2.6	87	43	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	4.6	1750	8430	5460	965	.00

CAL YR 1981 TOTAL 3788.10 MEAN 10.4 MAX 201 MIN .00 AC-FT 7510
WTR YR 1982 TOTAL 8373.10 MEAN 22.9 MAX 197 MIN .00 AC-FT 16610

09077200 FRYINGPAN RIVER NEAR IVANHOE LAKE, CO

LOCATION.--Lat 39°14'42", long 106°31'50", Pitkin County, Hydrologic Unit 14010004, on left bank 100 ft (30 m) downstream from diversion dam, 2.0 mi (3.2 km) southwest of Ivanhoe Lake, and 9.1 mi (14.6 km) southeast of Norrie.

DRAINAGE AREA.--18.7 mi² (48.4 km²).

PERIOD OF RECORD.--October 1963 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,945 ft (3,031 m), from topographic map. Prior to May 15, 1967, at site 200 ft (61 m) downstream at different datum. May 16 to Aug. 24, 1967, at site 1,060 ft (320 m) downstream at datum 9,895.01 ft (3,015.999 m) Aug. 25, 1967, to Sept. 30, 1973, at site 1,100 ft (340 m) downstream at datum 9,892.49 ft (3,015.231 m) (U.S. Bureau of Reclamation bench mark).

REMARKS.--Records good except those for period of no gage-height record, which are poor. Transmountain diversion above station through Charles H. Boustead tunnel since May 16, 1972 (see station 09077150 for figures of diversion). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey

AVERAGE DISCHARGE.--8 years (water years 1964-71), 34.2 ft³/s (0.969 m³/s), 24,780 acre-ft/yr (30.6 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 11 years (water years 1972-82), 10.9 ft³/s (0.309 m³/s), 7,900 acre-ft/yr (9.74 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 391 ft³/s (11.1 m³/s) June 22, 1965, gage height, 3.02 ft (0.920 m), site and datum then in use, from rating curve extended above 230 ft³/s (6.5 m³/s); maximum gage height, 4.62 ft (1.408 m) June 19, 1971; minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 102 ft³/s (2.89 m³/s) at 2100 Aug. 25, gage height, 2.08 ft (0.634 m); minimum daily, 4.0 ft³/s (0.11 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	9.0	6.0	6.5	6.0	6.0	7.5	11	12	14	22	35
2	12	9.0	6.5	6.0	5.5	6.5	7.0	12	12	14	22	32
3	15	9.0	7.0	6.5	5.0	7.0	7.0	12	12	13	22	30
4	14	9.0	6.5	6.0	5.0	6.5	7.5	13	12	13	21	29
5	14	9.0	6.5	6.0	4.5	6.0	7.5	14	12	13	21	36
6	13	9.0	7.0	6.5	4.0	5.5	7.5	13	12	13	21	36
7	13	9.0	7.5	5.5	4.5	5.5	7.5	14	13	13	21	30
8	13	8.5	7.5	4.5	5.0	5.5	7.5	13	13	13	27	29
9	13	7.5	7.5	5.0	5.0	5.5	7.5	13	13	13	31	27
10	12	7.0	7.5	6.0	5.5	5.5	7.5	14	14	13	31	26
11	12	7.5	7.5	6.0	5.5	5.5	8.0	14	14	13	30	32
12	12	7.5	7.5	6.0	5.0	5.5	9.0	13	14	13	31	40
13	12	8.0	7.0	5.5	5.5	5.5	10	13	14	13	31	38
14	12	8.5	6.5	5.0	6.0	6.0	11	13	14	13	19	36
15	12	8.5	7.0	5.5	6.0	5.5	13	13	13	13	17	33
16	13	8.0	6.5	5.5	6.5	5.5	11	13	13	13	22	32
17	12	7.5	6.0	5.5	7.0	6.0	10	13	13	20	32	29
18	12	7.5	5.5	6.0	6.5	6.0	10	13	14	34	37	29
19	11	7.0	6.0	5.5	6.5	6.0	9.5	13	13	40	36	29
20	11	6.5	6.5	5.5	6.5	5.5	9.0	13	13	40	36	33
21	12	7.0	6.5	5.0	7.0	5.5	8.4	13	13	40	37	30
22	11	7.5	6.0	5.0	7.5	6.0	8.4	14	13	40	38	27
23	11	7.5	5.5	4.5	7.0	6.0	9.0	14	14	39	48	28
24	10	7.5	5.0	5.0	6.5	5.5	8.7	13	14	38	52	26
25	9.5	7.5	5.5	5.5	6.5	5.5	8.4	12	14	37	58	24
26	9.5	7.0	5.5	6.0	6.0	5.5	9.0	12	14	37	64	26
27	11	7.0	5.5	6.0	6.0	6.0	9.5	12	14	37	52	24
28	10	7.0	5.0	6.0	6.0	6.5	10	12	14	39	48	25
29	11	7.0	5.0	6.0	---	7.0	10	13	14	24	43	25
30	9.5	6.5	5.5	6.0	---	6.5	10	12	14	13	40	27
31	9.0	---	6.0	6.5	---	7.0	---	12	---	18	37	---
TOTAL	363.5	234.0	196.5	176.0	163.5	183.5	265.9	399	398	706	1047	903
MEAN	11.7	7.80	6.34	5.68	5.84	5.92	8.86	12.9	13.3	22.8	33.8	30.1
MAX	15	9.0	7.5	6.5	7.5	7.0	13	14	14	40	64	40
MIN	9.0	6.5	5.0	4.5	4.0	5.5	7.0	11	12	13	17	24
AC-FT	721	464	390	349	324	364	527	791	789	1400	2080	1790

CAL YR 1981 TOTAL 5134.5 MEAN 14.1 MAX 52 MIN 4.5 AC-FT 10180
WTR YR 1982 TOTAL 5035.9 MEAN 13.8 MAX 64 MIN 4.0 AC-FT 9990

NOTE.--NO GAGE-HEIGHT RECORD OCT. 25 TO APR. 20.

09077250 LILY PAD CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'32", long 106°32'15", Pitkin County, Hydrologic Unit 14010004, on left bank at concrete diversion structure, 200 ft (61 m) downstream from diversion point on Lily Pad Creek, and 7.7 mi (12.4 km) southwest of Norrie.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 10,200.50 ft (3,109.112 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period of no gage-height record, which are poor. This a transmountain diversion from Lily Pad Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 26 ft³/s (0.74 m³/s) June 11, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	11	12	5.6	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	11	11	5.2	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	10	7.7	4.8	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	9.1	7.6	4.4	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	11	6.6	4.1	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	12	6.4	3.7	.00
7	.00	.00	.00	.00	.00	.00	.00	2.0	12	5.0	3.4	.00
8	.00	.00	.00	.00	.00	.00	.00	3.2	13	4.9	3.0	.00
9	.00	.00	.00	.00	.00	.00	.00	3.4	14	4.9	2.7	.00
10	.00	.00	.00	.00	.00	.00	.00	3.8	15	4.4	2.0	.00
11	.00	.00	.00	.00	.00	.00	.00	4.2	11	4.1	1.7	.00
12	.00	.00	.00	.00	.00	.00	.00	4.1	15	4.1	.38	.00
13	.00	.00	.00	.00	.00	.00	.00	3.8	15	4.0	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	3.3	15	4.2	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	3.0	14	4.2	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	2.7	14	3.8	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	2.6	15	3.5	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	2.7	17	3.4	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	3.2	12	3.2	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	3.0	11	3.0	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	3.2	13	2.9	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	4.2	13	2.8	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	5.0	13	2.8	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	5.2	16	2.9	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	5.2	15	2.6	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	5.5	15	2.5	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	7.7	16	4.3	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	9.3	14	7.4	.00	.00
29	.00	.00	.00	.00	---	.00	.00	10	13	8.1	.00	.00
30	.00	.00	.00	.00	---	.00	.00	10	12	7.2	.00	.00
31	.00	---	.00	.00	---	.00	---	10	---	6.4	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	120.30	397.1	157.9	40.98	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	3.88	13.2	5.09	1.32	.000
MAX	.00	.00	.00	.00	.00	.00	.00	10	17	12	5.6	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	9.1	2.5	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	239	788	313	81	.00

CAL YR 1981	TOTAL 268.25	MEAN .73	MAX 21	MIN .00	AC-FT 532
WTR YR 1982	TOTAL 716.28	MEAN 1.96	MAX 17	MIN .00	AC-FT 1420

NOTE.--NO GAGE-HEIGHT RECORD JULY 12 TO AUG. 12.

ROARING FORK RIVER BASIN

09077300 GRANITE CREEK FEEDER CONDUIT NEAR NORRIE, CO

LOCATION.--Lat 39°16'09", long 106°33'08", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete adit structure, 1.0 mi (1.6 km) through siphon from diversion point on Granite Creek, and 6.7 mi (10.8 km) southeast of Norrie, and 0.3 mi (0.5 km) above confluence with Fryingpan River.

PERIOD OF RECORD.--May to July 1981.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,989.70 ft (3,044.861 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 34 ft³/s (0.96 m³/s) June 28, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	31	6.4	
2									---	28	5.4	
3									---	26	6.1	
4									8.2	24	4.7	
5									19	21	4.3	
6									20	19	4.4	
7									19	16	4.1	
8									21	16	3.9	
9									24	16	2.3	
10									26	14	---	
11									20	14	---	
12									26	13	---	
13									26	12	---	
14									26	12	---	
15									25	11	---	
16									24	11	---	
17									29	10	---	
18									33	9.5	---	
19									27	9.0	---	
20									25	8.1	---	
21									28	8.0	---	
22									29	7.8	---	
23									29	7.8	---	
24									31	8.1	---	
25									31	7.0	---	
26									30	6.7	---	
27									31	5.8	---	
28									34	9.8	---	
29									33	11	---	
30									32	10	---	
31									---	7.8	---	
TOTAL									---	410.4	---	
MEAN									---	13.2	---	
MAX									---	31	---	
MIN									---	5.8	---	
AC-FT									---	814	---	

09077605 IVANHOE CREEK FEEDER CANAL NEAR NAST, CO

LOCATION.--Lat 39°17'14", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank about 300 ft (91 m) downstream from diversion point on Ivanhoe Creek, 2.3 mi (3.7 km) east of Nast, and 5.8 mi (9.3 km) southeast of Norrie.

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Datum of gage, 10,004.00 ft (3,049.219 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period May 4-20, which are poor. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 99 ft³/s (2.80 m³/s) June 27, 1979; no flow most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	61	26	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	51	22	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	38	18	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	2.0	34	16	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	18	46	14	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	10	48	13	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	6.0	45	22	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	5.4	48	36	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	6.2	47	37	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	11	49	34	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	11	34	32	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	8.0	51	30	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	5.2	46	16	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	3.9	41	5.7	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	2.9	36	4.9	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	2.4	40	1.7	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	2.5	44	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	3.0	24	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	5.6	5.7	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	8.2	19	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	10	32	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	18	34	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	23	34	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	28	36	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	28	36	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	29	34	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	45	34	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	54	35	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	64	32	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	58	29	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	52	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	520.30	1143.7	328.30	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	16.8	38.1	10.6	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	64	61	37	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	5.7	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	1030	2270	651	.00	.00

CAL YR 1981 TOTAL 1228.00 MEAN 3.36 MAX 62 MIN .00 AC-FT 2440
WTR YR 1982 TOTAL 1992.30 MEAN 5.46 MAX 64 MIN .00 AC-FT 3950

09077610 IVANHOE CREEK NEAR NAST, CO

LOCATION.--Lat 39°17'13", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank 60 ft (18 m) upstream from culvert under Nast Tunnel, about 300 ft (91 m) downstream from diversion dam, 2.3 mi (3.7 km) east of Nast, and 5.8 mi (9.3 km) southeast of Norrie.

DRAINAGE AREA.--9.43 mi^2 (24.42 km^2).

PERIOD OF RECORD.--October 1975 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,980 ft (3,042 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Transmountain diversions above station through Busk-Ivanhoe and Charles H. Boustead tunnels to Arkansas River basin (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 1.71 ft^3/s (0.048 m^3/s), 1,240 acre-ft/yr (1.53 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 159 ft^3/s (4.50 m^3/s) May 21, 1982, gage height, 3.86 ft (1.177 m); minimum daily, 0.18 ft^3/s (0.005 m^3/s) Oct. 17, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 159 ft^3/s (4.50 m^3/s) at 0830 May 21, gage height, 3.86 ft (1.177 m); minimum daily, 0.40 ft^3/s (0.011 m^3/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.97	1.6	.80	1.1	.90	1.1	1.6	8.1	2.2	3.1	3.7	1.5
2	.97	1.6	1.0	1.0	.80	1.2	1.5	9.7	2.0	2.7	3.4	1.3
3	1.6	1.6	1.2	1.1	.70	1.0	1.5	13	1.8	2.5	3.6	1.2
4	1.7	1.6	1.0	1.0	.70	.80	1.7	8.7	2.0	2.3	3.2	1.1
5	2.0	1.6	1.0	1.0	.60	.70	1.7	1.6	2.8	2.2	3.0	2.8
6	1.9	1.6	1.2	1.1	.40	.70	1.7	1.4	2.8	2.3	3.0	3.1
7	1.5	1.6	1.4	.90	.50	.70	1.9	1.7	2.7	2.7	3.1	1.9
8	1.5	1.4	1.4	.50	.60	.70	1.9	1.9	3.2	2.9	2.6	1.9
9	1.8	1.3	1.4	.80	.60	.90	1.9	2.0	3.7	2.9	2.6	2.0
10	1.5	1.2	1.4	1.0	.80	.80	1.9	2.0	3.8	2.8	2.4	1.9
11	1.4	1.4	1.4	1.0	.80	.80	2.5	2.0	17	2.7	2.2	2.8
12	1.5	1.4	1.4	1.0	.80	.90	3.0	2.1	4.1	2.6	2.3	5.1
13	1.6	1.5	1.2	.80	.70	.90	3.5	2.0	4.1	2.6	3.2	4.8
14	1.5	1.6	1.0	.60	1.0	.90	4.0	1.8	4.0	2.5	3.3	4.6
15	1.7	1.6	1.2	.80	1.0	.70	4.5	1.7	3.7	2.4	2.6	4.0
16	2.2	1.4	1.0	.80	1.2	.70	4.0	1.7	3.8	4.6	2.1	3.3
17	1.9	1.2	1.0	.80	1.4	.80	4.0	1.7	4.2	5.6	1.9	2.8
18	1.8	1.2	.80	1.0	1.2	.80	4.0	1.8	31	5.4	1.9	2.6
19	2.0	1.1	1.0	.80	1.2	.70	4.0	1.9	33	5.0	1.7	2.6
20	1.9	1.0	1.2	.80	1.2	.70	3.5	2.0	13	4.7	1.7	3.4
21	1.8	1.2	1.2	.60	1.4	.80	3.5	7.1	4.4	4.4	2.0	3.0
22	1.8	1.4	1.0	.60	1.5	.90	3.5	2.6	4.6	4.3	2.2	2.4
23	1.7	1.4	.80	.50	1.3	1.0	4.0	2.7	4.2	4.0	2.3	2.2
24	1.7	1.4	.60	.60	1.2	.90	4.0	2.6	3.9	3.8	2.0	2.0
25	1.5	1.4	.80	.70	1.2	.90	3.5	2.2	3.9	3.6	2.4	1.9
26	1.6	1.2	.80	.90	1.0	1.0	4.0	2.4	3.8	3.4	3.4	2.0
27	1.8	1.2	.80	.90	1.0	1.2	4.0	2.2	3.7	4.2	2.2	2.0
28	1.8	1.2	.60	.90	1.0	1.4	4.6	2.6	3.7	7.0	2.3	2.3
29	1.8	1.2	.80	.90	---	1.2	5.2	2.6	3.7	7.4	2.3	2.6
30	1.8	1.0	1.0	.90	---	1.3	5.8	2.2	3.4	5.5	1.8	2.6
31	1.8	---	1.1	1.0	---	1.4	---	2.0	---	4.3	1.6	---
TOTAL	52.04	41.1	32.50	26.40	26.70	28.50	96.4	100.0	184.2	116.4	78.0	77.7
MEAN	1.68	1.37	1.05	.85	.95	.92	3.21	3.23	6.14	3.75	2.52	2.59
MAX	2.2	1.6	1.4	1.1	1.5	1.4	5.8	13	33	7.4	3.7	5.1
MIN	.97	1.0	.60	.50	.40	.70	1.5	1.4	1.8	2.2	1.6	1.1
AC-FT	103	82	64	52	53	57	191	198	365	231	155	154

CAL YR 1981 TOTAL 838.61 MEAN 2.30 MAX 26 MIN .30 AC-FT 1660
WTR YR 1982 TOTAL 859.94 MEAN 2.36 MAX 33 MIN .40 AC-FT 1710

NOTE.--NO GAGE-HEIGHT RECORD OCT. 24 TO APR. 26.

09077750 SOUTH FORK FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'22", Pitkin County, Hydrologic Unit 14010004, on right bank 110 ft (34 m) downstream from diversion point on South Fork Fryingpan River and 7.2 mi (11.6 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,997.80 ft (3,047.329 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period of no gage-height record, June 10-15, which are fair. This is a transmountain diversion from South Fork Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 188 ft³/s (5.32 m³/s) June 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	55	134	27	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	58	118	24	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	53	109	25	.00
4	.00	.00	.00	.00	.00	.00	.00	.94	43	101	21	.00
5	.00	.00	.00	.00	.00	.00	.00	8.3	62	91	18	.00
6	.00	.00	.00	.00	.00	.00	.00	13	65	82	17	.00
7	.00	.00	.00	.00	.00	.00	.00	8.9	66	69	15	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	75	71	14	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	82	70	15	.00
10	.00	.00	.00	.00	.00	.00	.00	.05	92	66	12	.00
11	.00	.00	.00	.00	.00	.00	.00	.77	96	66	11	.00
12	.00	.00	.00	.00	.00	.00	.00	.99	103	64	14	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	101	61	16	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	97	62	15	.00
15	.00	.00	.00	.00	.00	.00	.00	.02	89	59	11	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	90	54	9.4	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	114	51	21	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	121	49	20	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	92	47	16	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	88	45	17	.00
21	.00	.00	.00	.00	.00	.00	.00	.47	110	43	18	.00
22	.00	.00	.00	.00	.00	.00	.00	1.7	114	41	22	.00
23	.00	.00	.00	.00	.00	.00	.00	2.6	112	41	16	.00
24	.00	.00	.00	.00	.00	.00	.00	2.6	128	44	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	9.6	127	36	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	12	124	34	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	29	138	39	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	40	140	48	.00	.00
29	.00	.00	.00	.00	---	.00	.00	51	140	51	.00	.00
30	.00	.00	.00	.00	---	.00	.00	48	136	39	.00	.00
31	.00	---	.00	.00	---	.00	---	45	---	32	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	274.94	2911	1917	394.40	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	8.87	97.0	61.8	12.7	.000
MAX	.00	.00	.00	.00	.00	.00	.00	51	140	134	27	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	43	32	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	545	5770	3800	782	.00

CAL YR 1981 TOTAL 2303.72 MEAN 6.31 MAX 135 MIN .00 AC-FT 4570
WTR YR 1982 TOTAL 5497.34 MEAN 15.1 MAX 140 MIN .00 AC-FT 10900

09077800 SOUTH FORK FRYINGPAN RIVER AT UPPER STATION, NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'24", Pitkin County, Hydrologic Unit 14010004, on right bank 300 ft (91 m) downstream from diversion dam, 5.2 mi (8.4 km) upstream from mouth, and 7.2 mi (11.6 km) southeast of Norrie.

DRAINAGE AREA.--11.5 mi² (29.8 km²).

PERIOD OF RECORD.--October 1963 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,990 ft (3,045 m), from topographic map. Prior to Oct. 1, 1973, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Transmountain diversion above station through Charles H. Boustead tunnel since May 16, 1972 (see station 09077750 for figures of diversion). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--8 years (water years 1964-71), 21.6 ft³/s (0.612 m³/s), 15,650 acre-ft/yr (19.3 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 11 years (water years 1972-82), 6.70 ft³/s (0.190 m³/s), 4,850 acre-ft/yr (5.98 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 326 ft³/s (9.23 m³/s) June 24, 1971, gage height, 3.35 ft (1.021 m), site and datum then in use, from rating curve extended above 180 ft³/s (5.1 m³/s); maximum gage height, 4.40 ft (1.341 m) sometime during period Nov. 15, 1978 to May 21, 1979 (backwater from ice); minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Dec. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83 ft³/s (2.35 m³/s) at 0200 May 7, gage height, 3.00 ft (0.914 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.5	3.0	4.0	3.5	3.5	5.0	4.2	8.8	10	8.6	19
2	6.2	5.5	3.5	3.5	3.0	4.0	4.5	5.4	5.9	7.9	8.6	17
3	7.6	5.5	4.0	4.0	2.5	4.5	4.5	7.6	5.9	7.6	8.6	16
4	7.9	5.5	3.5	3.5	2.5	4.0	5.0	8.9	5.6	7.3	8.3	16
5	7.9	5.5	3.5	3.5	2.0	3.5	5.0	9.2	5.6	7.0	8.3	20
6	7.6	5.5	4.0	4.0	1.5	3.0	5.0	7.1	5.6	6.7	8.3	20
7	7.3	5.4	4.5	3.0	2.0	3.0	5.0	50	5.6	6.4	8.3	16
8	6.7	5.0	4.5	2.0	2.5	3.0	5.0	11	5.6	6.7	8.3	16
9	7.3	4.5	4.5	3.0	2.5	3.0	5.0	7.6	5.9	7.0	8.3	15
10	7.3	4.0	4.5	3.5	3.0	3.0	5.0	8.3	7.6	7.3	7.9	14
11	7.0	4.5	4.5	3.5	3.0	3.0	5.5	9.9	7.6	7.6	7.9	18
12	7.0	4.5	4.5	3.5	2.5	3.0	6.0	9.6	7.6	7.6	7.9	23
13	6.7	5.0	4.0	3.0	3.0	3.0	6.5	9.2	7.6	7.6	7.9	21
14	6.7	5.5	3.5	2.5	3.5	3.5	7.0	7.9	7.3	7.6	7.9	20
15	7.0	5.5	4.0	3.0	3.5	3.0	7.5	7.3	9.9	7.6	7.6	18
16	7.6	5.0	3.5	3.0	4.0	3.0	6.5	6.2	11	7.6	7.6	17
17	7.3	4.5	3.5	3.0	4.5	3.5	6.0	6.2	9.6	7.6	7.9	16
18	7.0	4.5	3.0	3.5	4.0	3.5	6.5	6.7	8.6	7.6	7.9	16
19	7.0	4.0	3.5	3.0	4.0	3.5	6.0	7.9	6.2	7.6	7.9	15
20	7.0	3.5	4.0	3.0	4.0	3.0	5.5	8.6	5.9	7.9	7.9	18
21	6.5	4.0	4.0	2.5	4.5	3.0	5.0	8.9	7.3	8.3	8.3	16
22	6.0	4.5	3.5	2.5	5.0	3.5	5.0	9.2	9.6	8.3	8.3	15
23	5.5	4.5	3.0	2.0	4.5	3.5	5.5	9.6	9.2	8.3	16	15
24	6.0	4.5	2.5	3.0	4.0	3.0	5.0	9.6	9.6	8.3	28	14
25	5.0	4.5	3.0	3.5	4.0	3.0	4.5	9.6	7.6	8.3	30	13
26	5.5	4.0	3.0	3.5	3.5	3.0	3.0	9.9	7.0	8.3	32	14
27	6.0	4.0	3.0	3.5	3.5	3.5	2.0	10	11	8.3	27	12
28	6.0	4.0	2.5	3.5	3.5	4.0	2.3	11	14	8.6	25	12
29	6.0	4.0	2.5	3.5	---	4.5	2.5	11	12	8.6	23	13
30	6.0	3.5	3.0	3.5	---	4.0	3.0	11	10	8.6	21	14
31	6.0	---	3.5	4.0	---	4.5	---	11	---	8.6	20	---
TOTAL	206.8	139.9	111.0	100.0	93.5	106.0	149.8	309.6	240.7	242.7	400.5	489
MEAN	6.67	4.66	3.58	3.23	3.34	3.42	4.99	9.99	8.02	7.83	12.9	16.3
MAX	7.9	5.5	4.5	4.0	5.0	4.5	7.5	50	14	10	32	23
MIN	5.0	3.5	2.5	2.0	1.5	3.0	2.0	4.2	5.6	6.4	7.6	12
AC-FT	410	277	220	198	185	210	297	614	477	481	794	970

CAL YR 1981 TOTAL 3065.1 MEAN 8.40 MAX 39 MIN 1.5 AC-FT 6080
WTR YR 1982 TOTAL 2589.5 MEAN 7.09 MAX 50 MIN 1.5 AC-FT 5140

NOTE.--NO GAGE-HEIGHT RECORD OCT. 18 TO APR. 26.

09077940 CHAPMAN GULCH FEEDER CANAL NEAR NORRIE, CO

LOCATION.(revised)--Lat 39°15'48", long 106°37'47", Pitkin County, Hydrologic Unit 14010004, on right bank 180 ft (55 m) downstream from diversion point on point on Chapman Gulch and 4.5 mi (7.2 km) southeast of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,032.60 ft (3,057.936 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Chapman Gulch and Sawyer Creek Feeder Canal in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 322 ft³/s (9.12 m³/s) June 28, 1982; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	2.4	170	305	51	.00
2	.00	.00	.00	.00	.00	.00	.00	9.0	173	274	42	.00
3	.00	.00	.00	.00	.00	.00	.00	16	153	257	39	.00
4	.00	.00	.00	.00	.00	.00	.00	23	140	243	33	.00
5	.00	.00	.00	.00	.00	.00	.00	25	198	221	29	.00
6	.00	.00	.00	.00	.00	.00	.00	9.9	200	200	26	.00
7	.00	.00	.00	.00	.00	.00	.00	3.4	202	172	24	.00
8	.00	.00	.00	.00	.00	.00	.00	4.6	233	167	21	.00
9	.00	.00	.00	.00	.00	.00	.00	6.4	249	175	24	.00
10	.00	.00	.00	.00	.00	.00	.00	13	269	160	20	.00
11	.00	.00	.00	.00	.00	.00	.00	19	274	164	17	.00
12	.00	.00	.00	.00	.00	.00	.00	13	283	162	23	.00
13	.00	.00	.00	.00	.00	.00	.00	10	282	148	30	.00
14	.00	.00	.00	.00	.00	.00	.00	6.6	262	144	27	.00
15	.00	.00	.00	.00	.00	.00	.00	5.1	237	135	17	.00
16	.00	.00	.00	.00	.00	.00	.00	4.3	241	121	13	.00
17	.00	.00	.00	.00	.00	.00	.00	4.4	307	110	15	.00
18	.00	.00	.00	.00	.00	.00	.00	8.0	311	103	15	.00
19	.00	.00	.00	.00	.00	.00	.00	9.4	263	100	12	.00
20	.00	.00	.00	.00	.00	.00	.00	7.6	242	94	12	.00
21	.00	.00	.00	.00	.00	.00	.00	12	274	87	18	.00
22	.00	.00	.00	.00	.00	.00	.00	27	284	87	24	.00
23	.00	.00	.00	.00	.00	.00	.00	43	281	80	14	.00
24	.00	.00	.00	.00	.00	.00	.00	50	296	75	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	44	300	71	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	54	298	70	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	105	309	74	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	130	321	93	.00	.00
29	.00	.00	.00	.00	---	.00	.00	160	322	114	.00	.00
30	.00	.00	.00	.00	---	.00	.00	148	310	77	.00	.00
31	.00	---	.00	.00	---	.00	---	140	---	62	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	1113.1	7684	4345	546.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	35.9	256	140	17.6	.000
MAX	.00	.00	.00	.00	.00	.00	.00	160	322	305	51	.00
MIN	.00	.00	.00	.00	.00	.00	.00	2.4	140	62	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	2210	15240	8620	1080	.00

CAL YR 1981 TOTAL 5250.87 MEAN 14.4 MAX 262 MIN .00 AC-FT 10420
WTR YR 1982 TOTAL 13688.10 MEAN 37.5 MAX 322 MIN .00 AC-FT 27150

09077945 CHAPMAN GULCH NEAR NAST, CO

LOCATION.--Lat 39°15'51", long 106°37'54", Pitkin County, Hydrologic Unit 14010004, on left bank 700 ft (210 m) downstream from Chapman diversion tunnel, 2.5 mi (4.0 km) northwest of Nast, 3.3 mi (5.3 km) upstream from mouth, and 4.3 mi (6.9 km) south of Norrie.

DRAINAGE AREA.--5.96 mi^2 (15.44 km^2).

PERIOD OF RECORD.--October 1972 to September 1982 (discontinued).

REVISED RECORDS.--WDR-CO-79-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,982.76 ft (3,042.745 m), National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for discharges above 20 ft^3/s (0.57 m^3/s), which are fair. Transmountain diversion above station to Charles H. Boustead tunnel by Chapman Gulch feeder canal (station 09077940). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--10 years, 3.48 ft^3/s (0.099 m^3/s), 2,520 acre-ft/yr (3.11 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 138 ft^3/s (3.91 m^3/s) June 28, 1982, gage height, 3.38 ft (1.030 m), maximum gage height, 3.90 ft (1.189 m) June 11, 1981; minimum daily, 0.20 ft^3/s (0.006 m^3/s) Dec. 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 138 ft^3/s (3.91 m^3/s) at 2230 June 28, gage height, 3.38 ft (1.030 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Feb. 13-Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.2	2.4	2.2	2.1	2.0	2.1	5.7	2.2	25	3.2	6.0
2	4.7	3.1	2.4	2.2	2.1	2.0	2.1	5.7	2.7	10	3.1	6.0
3	6.0	3.0	2.4	2.2	2.1	2.0	2.1	8.5	4.0	6.6	3.1	6.0
4	5.6	3.0	2.3	2.2	2.1	2.0	2.1	11	4.0	4.4	3.0	6.0
5	6.4	3.0	2.3	2.2	2.1	2.0	2.1	11	4.0	3.8	3.0	6.0
6	5.7	2.8	2.3	2.2	2.1	2.0	2.1	10	3.4	3.7	3.0	6.0
7	5.1	2.9	2.3	2.2	2.1	2.0	2.1	6.6	3.5	3.6	3.0	6.0
8	5.2	2.8	2.2	2.2	2.1	2.0	2.1	4.4	3.4	3.4	3.0	6.0
9	5.5	2.6	2.2	2.2	2.1	2.0	2.1	4.7	3.8	3.2	3.0	5.7
10	5.0	2.6	2.2	2.2	2.1	2.0	2.1	4.0	2.7	3.2	3.0	6.1
11	4.9	2.6	2.2	2.2	2.1	2.0	2.2	3.6	3.5	3.2	3.3	7.3
12	5.0	2.6	2.2	2.2	2.1	2.0	2.4	3.3	7.1	3.2	3.6	9.9
13	5.0	2.6	2.2	2.2	2.0	2.0	2.6	3.2	7.0	3.2	3.7	9.4
14	4.9	2.7	2.2	2.2	2.0	2.0	2.9	3.0	6.5	3.3	3.7	8.4
15	5.0	2.7	2.2	2.2	2.0	2.0	3.3	2.9	6.5	3.4	3.6	8.2
16	5.2	2.6	2.2	2.1	2.0	2.0	3.2	2.8	16	3.4	3.6	7.6
17	5.0	2.6	2.2	2.1	2.0	2.0	2.7	2.8	29	3.3	3.6	6.7
18	4.7	2.6	2.2	2.1	2.0	2.0	2.7	2.9	56	3.2	3.5	6.4
19	4.3	2.6	2.2	2.1	2.0	2.0	2.6	2.9	11	3.2	3.5	6.1
20	3.9	2.6	2.2	2.1	2.0	2.0	2.6	2.9	16	3.1	3.5	8.0
21	3.8	2.6	2.2	2.1	2.0	2.0	2.6	2.9	28	3.1	3.5	7.3
22	3.6	2.6	2.2	2.1	2.0	2.0	2.6	3.0	28	3.4	3.5	6.3
23	3.6	2.6	2.2	2.1	2.0	2.0	2.9	3.0	33	3.6	6.0	6.3
24	3.4	2.6	2.2	2.1	2.0	2.0	3.0	3.0	52	3.6	8.0	5.9
25	3.3	2.6	2.2	2.1	2.0	2.0	2.9	3.5	39	3.5	10	5.6
26	3.3	2.6	2.3	2.1	2.0	2.0	2.9	3.5	28	3.4	11	6.0
27	3.2	2.5	2.3	2.1	2.0	2.0	2.8	3.5	45	3.4	8.7	5.7
28	3.2	2.4	2.2	2.1	2.0	2.0	3.0	3.0	65	3.6	7.9	6.1
29	3.2	2.4	2.2	2.1	---	2.0	3.7	2.5	45	3.7	7.4	6.3
30	3.2	2.4	2.2	2.1	---	2.0	4.2	2.3	32	3.2	6.8	6.7
31	3.2	---	2.2	2.1	---	2.0	---	2.2	---	3.2	6.4	---
TOTAL	138.8	80.5	69.4	66.6	57.2	62.0	78.8	134.3	587.3	137.1	145.2	200.0
MEAN	4.48	2.68	2.24	2.15	2.04	2.00	2.63	4.33	19.6	4.42	4.68	6.67
MAX	6.4	3.2	2.4	2.2	2.1	2.0	4.2	11	65	25	11	9.9
MIN	3.2	2.4	2.2	2.1	2.0	2.0	2.1	2.2	2.2	3.1	3.0	5.6
AC-FT	275	160	138	132	113	123	156	266	1160	272	288	397

CAL YR 1981 TOTAL 1724.6 MEAN 4.72 MAX 31 MIN 1.9 AC-FT 3420
WTR YR 1982 TOTAL 1757.2 MEAN 4.81 MAX 65 MIN 2.0 AC-FT 3490

09077960 SAWYER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'44", long 106°37'39", Pitkin County, Hydrologic Unit 14010004, on left bank 3,100 ft (940 m) downstream from diversion point on Sawyer Creek and 4.9 mi (7.9 km) south of Norrie.

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,047.00 ft (3,062.326 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Sawyer Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is diverted to Chapman Gulch and is rediverted by Chapman Gulch feeder canal. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s (1.05 m³/s) June 24, 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	9.4	32	6.8	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	9.9	29	2.5	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	9.3	26	.13	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	9.6	24	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	12	22	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	13	20	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.34	14	18	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.92	17	17	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	1.2	19	18	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	1.1	20	16	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	1.1	21	15	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	1.1	23	14	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	1.1	23	14	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.86	21	13	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.80	19	13	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.76	19	9.1	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.80	26	6.3	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.92	31	6.3	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.98	25	6.3	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.86	23	6.3	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	1.2	24	6.3	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	2.4	25	6.3	.13	.00
23	.00	.00	.00	.00	.00	.00	.00	2.2	27	6.2	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	2.4	30	6.2	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	2.4	31	6.2	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	3.4	29	6.2	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	4.4	30	6.1	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	5.5	34	6.8	.00	.00
29	.00	.00	.00	.00	---	.00	.00	7.0	34	9.1	.00	.00
30	.00	.00	.00	.00	---	.00	.00	7.6	33	9.1	.00	.00
31	.00	---	.00	.00	---	.00	---	8.2	---	9.7	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	59.54	661.2	403.5	9.56	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	1.92	22.0	13.0	.31	.000
MAX	.00	.00	.00	.00	.00	.00	.00	8.2	34	32	6.8	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	9.3	6.1	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	118	1310	800	19	.00

CAL YR 1981 TOTAL 536.74 MEAN 1.47 MAX 33 MIN .00 AC-FT 1060
WTR YR 1982 TOTAL 1133.80 MEAN 3.11 MAX 34 MIN .00 AC-FT 2250

09078000 FRYINGPAN RIVER AT NORRIE, CO

LOCATION.--Lat 39°19'51", long 106°39'27", in NE¼NE¼ sec.28, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 200 ft (61 m) west of county road at Norrie, 1.2 mi (1.9 km) upstream from North Fork, and 2.1 mi (3.4 km) downstream from Chapman Gulch.

DRAINAGE AREA.--90.6 mi² (234.7 km²).

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to current year. Prior to October 1960, published as Fryingpan Creek at Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,410 ft (2,563 m), from topographic map. February 1911 to March 1917, nonrecording gages at site 200 ft (61 m) upstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-16, 1948-71), 123 ft³/s (3.483 m³/s) 89,110 acre-ft/yr (110 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 11 years (water years 1972-82), 57.4 ft³/s (1.626 m³/s), 41,590 acre-ft/yr (51.3 hm³/yr), subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft³/s (50.4 m³/s) June 30, 1957, gage height, 5.37 ft (1.637 m); maximum gage height, 5.55 ft (1.692 m) June 28, 1957; minimum daily discharge, 8.0 ft³/s (0.23 m³/s) Dec. 26, 1962, but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 426 ft³/s (12.1 m³/s) at 0100 June 29, gage height, 3.41 ft (1.039 m), maximum gage height, 4.11 ft (1.253 m) Mar. 31 (backwater from ice); minimum daily discharge, 12 ft³/s (0.34 m³/s) Jan. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	27	15	22	21	17	128	225	165	53	78
2	31	28	28	14	22	24	16	154	219	126	53	71
3	40	27	28	14	22	24	16	188	209	99	58	65
4	42	26	27	15	23	23	16	221	181	90	55	62
5	46	27	27	14	23	23	16	211	173	84	52	83
6	44	26	27	13	23	24	16	136	174	84	50	104
7	37	25	27	12	23	23	16	125	156	76	49	77
8	36	24	26	13	23	23	14	124	160	72	49	69
9	41	22	26	13	23	21	14	137	162	77	57	69
10	38	21	26	14	24	21	13	139	164	73	57	65
11	37	24	26	14	24	20	18	134	191	65	57	73
12	38	28	26	14	24	21	28	133	168	64	56	137
13	37	33	28	14	24	20	36	120	175	60	64	116
14	37	34	29	14	24	21	48	107	160	56	71	111
15	37	32	30	14	24	19	55	106	163	53	51	94
16	45	30	30	14	24	20	48	104	155	52	49	87
17	41	29	28	14	23	19	40	102	182	60	58	76
18	36	27	27	14	23	20	41	112	300	72	70	71
19	36	28	30	15	23	19	39	125	226	79	67	74
20	35	33	30	16	23	19	35	130	170	76	65	80
21	34	33	30	17	22	18	35	137	163	72	71	86
22	32	29	30	18	23	17	36	166	180	71	82	71
23	31	27	27	18	23	17	43	185	168	69	107	70
24	33	28	20	18	22	17	47	181	196	69	130	67
25	30	27	18	19	22	16	51	171	201	68	130	62
26	29	26	17	20	21	17	55	182	161	69	187	66
27	31	27	17	21	22	19	53	222	177	71	127	64
28	29	30	17	23	22	19	60	227	243	90	112	68
29	30	30	17	23	---	19	77	244	236	107	103	71
30	27	28	16	23	---	18	88	236	187	65	93	75
31	27	---	15	22	---	17	---	223	---	53	86	---
TOTAL	1096	837	777	502	641	619	1087	4910	5625	2387	2369	2362
MEAN	35.4	27.9	25.1	16.2	22.9	20.0	36.2	158	188	77.0	76.4	78.7
MAX	46	34	30	23	24	24	88	244	300	165	187	137
MIN	27	21	15	12	21	16	13	102	155	52	49	62
AC-FT	2170	1660	1540	996	1270	1230	2160	9740	11160	4730	4700	4690

CAL YR 1981 TOTAL 18030 MEAN 49.4 MAX 196 MIN 12 AC-FT 35760
WTR YR 1982 TOTAL 23212 MEAN 63.6 MAX 300 MIN 12 AC-FT 46040

09078040 NORTH FORK FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°21'40", long 106°32'16", Eagle County, Hydrologic Unit 14010004, on right bank at concrete adit structure, and 6.7 mi (10.8 km) northeast of Norrie, and 0.2 mi (0.3 km) above confluence with Mormon Creek.

PERIOD OF RECORD.--April to June 1981.

GAGE.--Water-stage recorder and standard suppressed rectangular weir. Datum of gage is 10,211.90 ft (3,112.587 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 33 ft³/s (0.93 m³/s) June 18, 24-26, 30, July 1, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	24	33		
2								---	24	32		
3								---	21	31		
4								---	21	30		
5								---	24	27		
6								---	26	26		
7								---	25	24		
8								---	27	24		
9								---	28	24		
10								---	29	23		
11								---	22	23		
12								---	30	23		
13								---	30	23		
14								---	28	23		
15								---	25	23		
16								---	27	21		
17								---	31	21		
18								---	33	20		
19								---	30	19		
20								---	27	19		
21								---	30	18		
22								---	31	17		
23								---	32	18		
24								---	33	18		
25								---	33	18		
26								6.1	33	7.6		
27								18	32	---		
28								20	32	---		
29								21	32	---		
30								22	33	---		
31								22	---	---		
TOTAL								---	853	---		
MEAN								---	28.4	---		
MAX								---	33	---		
MIN								---	21	---		
AC-FT								---	1690	---		

09078050 MORMON CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°21'20", long 106°32'00", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.5 mi (0.8 km) upstream from unnamed tributary, 1.0 mi (1.6 km) upstream from Carter Creek, and 6.8 mi (10.9 km) northeast of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,090 ft (3,075 m) from topographic map.

REMARKS.--This is a transmountain diversion from Mormon Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 78 ft³/s (2.21 m³/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	26	43		
2								---	24	40		
3								---	20	37		
4								---	20	32		
5								.92	29	28		
6								7.0	30	27		
7								3.4	30	24		
8								2.7	34	24		
9								3.6	32	24		
10								4.9	38	23		
11								5.4	31	22		
12								5.6	46	22		
13								3.8	43	22		
14								2.7	31	22		
15								2.0	33	19		
16								1.4	35	16		
17								.40	46	15		
18								.00	55	14		
19								1.4	37	13		
20								3.2	34	12		
21								5.0	37	11		
22								6.2	41	9.3		
23								11	41	8.4		
24								12	42	8.0		
25								10	43	8.0		
26								12	41	3.7		
27								19	40	---		
28								22	44	---		
29								24	44	---		
30								22	44	---		
31								22	---	---		
TOTAL								---	1091	---		
MEAN								---	36.4	---		
MAX								---	55	---		
MIN								---	20	---		
AC-FT								---	2160	---		

09078060 CARTER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°22'00", long 106°32'38", Eagle County, Hydrologic Unit 14010004, on left bank at concrete structure, and 6.7 mi (10.8 km) northeast of Norrie, and 0.6 mi (1.0 km) above confluence with North Fork Fryingpan River.

PERIOD OF RECORD.--April to June 1981.

GAGE.--Water-stage recorder and standard suppressed rectangular weir. Datum of gage is 10,124.75 ft (3,086.024 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 56 ft^3/s (1.59 m^3/s) June 7, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	19	39	13	
2								---	16	37	12	
3								2.1	14	35	10	
4								6.8	13	31	9.8	
5								7.3	20	25	8.1	
6								3.1	20	25	3.7	
7								1.3	21	22	---	
8								.52	25	21	---	
9								.99	26	24	---	
10								1.6	27	18	---	
11								1.7	16	20	---	
12								1.6	32	21	---	
13								.86	32	24	---	
14								.09	27	27	---	
15								.00	23	26	---	
16								.00	25	23	---	
17								.00	33	22	---	
18								.62	42	22	---	
19								1.4	30	20	---	
20								1.4	26	20	---	
21								2.0	31	20	---	
22								6.7	32	18	---	
23								10	37	19	---	
24								9.8	42	18	---	
25								7.5	40	17	---	
26								8.1	37	16	---	
27								16	38	15	---	
28								19	46	21	---	
29								19	44	24	---	
30								17	42	18	---	
31								17	---	14	---	
TOTAL								---	876	702	---	
MEAN								---	29.2	22.6	---	
MAX								---	46	39	---	
MIN								---	13	14	---	
AC-FT								---	1740	1390	---	

09078140 CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°20'12", long 106°32'31", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.8 mi (1.29 km) upstream from Middle Cunningham Creek, 6.2 mi (10.0 km) east of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,100 ft (3,078 m) from topographic map.

REMARKS.--This is a transmountain diversion from Cunningham Creek in the Roaring Fork basin through the Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 70 ft³/s (1.98 m³/s) June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	14	21	1.7	
2								---	13	20	1.2	
3								---	12	19	1.1	
4								---	12	18	.74	
5								---	15	16	.56	
6								---	16	14	.27	
7								---	15	13	---	
8								---	16	13	---	
9								---	16	13	---	
10								---	17	12	---	
11								---	13	12	---	
12								---	17	12	---	
13								---	17	11	---	
14								---	18	11	---	
15								---	17	9.2	---	
16								---	18	7.3	---	
17								---	24	6.7	---	
18								---	25	5.8	---	
19								.21	18	2.3	---	
20								1.3	17	.00	---	
21								2.8	19	.00	---	
22								5.3	20	.00	---	
23								6.7	20	.00	---	
24								8.0	24	.00	---	
25								7.3	23	.00	---	
26								7.9	20	.00	---	
27								13	24	.00	---	
28								13	27	.00	---	
29								13	24	2.4	---	
30								13	22	3.3	---	
31								13	---	2.4	---	
TOTAL								---	553	244.40	---	
MEAN								---	18.4	7.88	---	
MAX								---	27	21	---	
MIN								---	12	.00	---	
AC-FT								---	1100	485	---	

09078150 MIDDLE CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°19'43", long 106°33'06", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.4 mi (0.6 km) upstream from Cunningham Creek, 5.7 mi (9.2 km) east of Norrie.

PERIOD OF RECORD.--June 1979 to current year.

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,050 ft (3,063 m) from topographic map.

REMARKS.--This is a transmountain diversion from Middle Cunningham Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft³/s (1.25 m³/s) June 9, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	12	35	1.7	
2								---	12	31	1.3	
3								---	10	28	.98	
4								---	10	25	.70	
5								---	14	21	.28	
6								---	15	20	.12	
7								---	15	17	---	
8								---	19	16	---	
9								---	24	16	---	
10								---	25	15	---	
11								---	18	14	---	
12								---	28	14	---	
13								---	27	13	---	
14								---	26	12	---	
15								---	24	10	---	
16								---	25	8.4	---	
17								---	31	7.4	---	
18								---	36	7.0	---	
19								---	26	6.1	---	
20								---	25	5.4	---	
21								.18	27	4.9	---	
22								.70	27	4.2	---	
23								1.6	29	3.8	---	
24								2.1	32	3.3	---	
25								2.0	35	2.9	---	
26								4.1	32	2.5	---	
27								7.2	34	3.4	---	
28								8.4	38	5.0	---	
29								9.7	37	5.4	---	
30								9.3	37	3.8	---	
31								10	---	2.5	---	
TOTAL								---	750	363.0	---	
MEAN								---	25.0	11.7	---	
MAX								---	38	35	---	
MIN								---	10	2.5	---	
AC-FT								---	1490	720	---	

ROARING FORK RIVER BASIN

09078500 NORTH FORK FRYINGPAN RIVER NEAR NORRIE, CO

LOCATION.--Lat 39°20'34", long 106°39'55", in SE¼NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on left bank 800 ft (240 m) upstream from bridge on county road, 0.4 mi (0.6 km) upstream from mouth, 0.5 mi (0.8 km) downstream from Last Chance Creek, and 1.3 mi (2.1 km) northwest of Norrie.

DRAINAGE AREA.--42.0 mi² (108.8 km²).

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to September 1982 (discontinued). Prior to October 1960, published as North Fork Fryingpan Creek near Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,330 ft (2,539 m), from topographic map. Feb. 18, 1911, to Mar. 31, 1917, nonrecording gage at site 10 ft (3 m) downstream at different datum. Oct. 1, 1947, to Sept. 30, 1949, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are poor. One small diversion bypasses station for domestic use and irrigation of pasture. Low flow slightly regulated since 1968 by small recreation reservoir 2.0 mi (3.2 km) upstream. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--41 years (water years 1911-16, 1948-82), 49.5 ft³/s (1.402 m³/s), 35,860 acre-ft/yr (44.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,320 ft³/s (37.4 m³/s) June 6, 1958, gage height, 4.98 ft (1.518 m), from rating curve extended above 700 ft³/s (20 m³/s); maximum gage height, 5.80 ft (1.768 m) May 21, 1948 (present datum); minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Nov. 1, 1950.

EXT

(1.320 m); minimum daily, 2.0 ft³/s (0.057 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	8.1	4.0	4.5	4.0	3.5	7.5	76	142	120	32	14
2	7.5	8.1	4.5	4.0	3.5	4.0	7.0	91	135	109	30	12
3	8.5	8.3	5.0	4.5	3.0	4.5	7.0	113	126	96	28	11
4	9.5	8.3	4.5	4.0	3.0	4.0	7.5	124	119	89	26	10
5	11	8.1	5.0	4.0	2.5	3.5	7.5	128	142	78	24	16
6	11	8.3	5.0	4.5	2.0	3.0	7.5	85	144	78	23	20
7	10	8.3	5.5	3.5	2.5	3.5	7.5	69	138	69	29	14
8	9.5	7.7	5.5	2.5	3.0	4.0	7.5	66	147	65	27	12
9	10	6.9	5.5	3.0	3.0	4.0	7.5	71	147	66	28	13
10	9.8	6.1	5.5	4.0	3.5	4.0	7.5	76	151	59	29	11
11	9.1	6.5	5.5	4.0	3.5	4.5	9.5	74	188	56	27	12
12	9.5	6.5	5.5	4.0	3.0	4.5	18	75	170	54	25	29
13	9.5	7.7	5.0	3.5	3.5	4.5	26	68	156	52	28	34
14	9.3	8.1	4.5	3.0	4.0	5.5	36	61	144	50	33	36
15	9.3	8.1	5.0	3.5	4.0	5.0	41	57	131	47	28	29
16	11	7.5	4.5	3.5	4.5	5.0	38	59	131	43	23	27
17	11	6.7	4.0	3.5	5.0	5.5	30	59	149	42	20	26
18	9.8	6.7	3.5	4.0	4.0	5.5	32	68	222	39	20	23
19	10	6.5	4.5	3.5	4.0	5.5	29	76	159	37	18	20
20	9.8	5.0	5.5	3.5	4.5	5.0	26	75	142	39	21	19
21	8.9	5.5	5.5	3.0	4.5	5.0	23	83	142	37	20	22
22	8.1	6.0	5.0	3.0	5.0	5.5	25	101	142	36	19	20
23	7.1	6.0	4.0	2.5	4.5	5.5	31	117	147	36	25	17
24	8.3	5.5	3.0	3.0	4.0	5.0	32	115	151	38	20	16
25	6.7	5.5	3.5	3.5	4.0	5.0	33	105	149	32	20	14
26	6.9	5.0	3.5	4.0	3.5	5.5	37	105	142	31	30	14
27	8.7	5.0	3.5	4.0	3.5	6.0	36	133	133	40	24	15
28	8.5	5.0	3.0	4.0	3.5	6.5	38	140	154	66	20	14
29	8.5	5.0	3.0	4.0	---	6.5	52	144	149	62	20	17
30	8.5	4.5	3.5	4.0	---	6.0	51	140	135	46	17	17
31	8.3	---	4.0	4.5	---	6.5	---	135	---	37	15	---
TOTAL	281.1	200.5	139.0	114.0	102.5	151.5	717.5	2889	4427	1749	749	554
MEAN	9.07	6.68	4.48	3.68	3.66	4.89	23.9	93.2	148	56.4	24.2	18.5
MAX	11	8.3	5.5	4.5	5.0	6.5	52	144	222	120	33	36
MIN	6.7	4.5	3.0	2.5	2.0	3.0	7.0	57	119	31	15	10
AC-FT	558	398	276	226	203	301	1420	5730	8780	3470	1490	1100

CAL YR 1981 TOTAL 9134.9 MEAN 25.0 MAX 213 MIN 1.0 AC-FT 18120
WTR YR 1982 TOTAL 12074.1 MEAN 33.1 MAX 222 MIN 2.0 AC-FT 23950

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO MAY 2.

09078600 FRYINGPAN RIVER NEAR THOMASVILLE, CO

LOCATION.--Lat 39°20'41", long 106°40'23", in NW¼NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 400 ft (120 m) upstream from private bridge, 400 ft (120 m) downstream from North Fork, 1.6 mi (2.6 km) southeast of Thomasville, and 1.7 mi (2.7 km) northwest of Norrie.

DRAINAGE AREA.--134 mi² (347 km²).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,210 ft (2,502 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--7 years, 82.3 ft³/s (2.331 m³/s), 59,630 acre-ft/yr (73.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,060 ft³/s (30.02 m³/s) June 16, 1978, gage height, 3.94 ft (1.201 m); minimum daily, 10 ft³/s (0.28 m³/s) Nov. 28, 1976, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 648 ft³/s (18.4 m³/s) at 0030 June 29, gage height, 3.43 ft (1.045 m); minimum daily, 16 ft³/s (0.45 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	37	21	26	24	23	28	212	350	299	93	90
2	35	38	25	23	22	23	27	253	339	248	90	82
3	44	37	28	25	21	26	27	289	324	219	91	77
4	48	36	26	24	21	22	28	334	299	197	88	74
5	54	36	27	24	19	20	28	339	318	179	82	93
6	54	37	28	25	16	18	28	227	324	179	80	117
7	45	37	30	21	19	19	28	193	299	163	84	88
8	42	35	30	18	20	20	28	182	318	150	82	80
9	48	29	30	20	20	21	28	197	313	160	91	82
10	44	26	30	23	21	21	28	208	329	144	91	77
11	42	28	30	23	21	22	33	200	377	130	90	86
12	45	28	30	23	20	22	56	200	344	125	86	160
13	44	31	28	22	22	22	74	182	344	122	97	144
14	44	34	25	21	24	25	104	163	313	115	108	139
15	44	35	27	22	24	24	117	160	299	110	86	120
16	54	32	26	22	25	23	108	156	294	101	78	117
17	50	28	25	22	26	25	86	156	334	108	82	106
18	45	29	22	24	24	24	90	176	522	117	91	97
19	45	26	26	23	24	24	84	193	388	120	88	97
20	44	22	29	23	25	23	74	193	318	120	90	99
21	42	27	29	22	25	23	66	204	313	115	91	108
22	40	29	27	22	27	26	72	248	324	113	95	91
23	35	29	24	20	26	24	88	280	324	113	120	88
24	40	28	20	22	24	23	91	275	355	115	133	84
25	35	28	23	23	24	23	95	261	355	110	130	78
26	33	24	24	24	23	24	106	266	313	106	189	82
27	43	24	24	24	23	25	104	334	324	117	136	80
28	40	24	22	24	23	26	110	344	406	166	120	82
29	41	24	22	24	---	26	144	371	394	172	117	88
30	38	23	24	24	---	25	142	355	334	117	106	90
31	37	---	25	25	---	26	---	344	---	97	97	---
TOTAL	1329	901	807	708	633	718	2122	7495	10188	4447	3102	2896
MEAN	42.9	30.0	26.0	22.8	22.6	23.2	70.7	242	340	143	100	96.5
MAX	54	38	30	26	27	26	144	371	522	299	189	160
MIN	33	22	20	18	16	18	27	156	294	97	78	74
AC-FT	2640	1790	1600	1400	1260	1420	4210	14870	20210	8820	6150	5740

CAL YR 1981 TOTAL 27193 MEAN 74.5 MAX 383 MIN 13 AC-FT 53940
WTR YR 1982 TOTAL 35346 MEAN 96.8 MAX 522 MIN 16 AC-FT 70110

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO MAR 10.

09080190 RUEDI RESERVOIR NEAR BASALT, CO

LOCATION.--Lat 39°21'50", long 106°49'05", in NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 mi (21 km) east of Basalt.

DRAINAGE AREA.--223 mi² (578 km²).

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in May 1968; dam completed July 16, 1968. Capacity, 102,300 acre-ft (126 hm³), 1969 survey, between elevations 7,540.00 ft (2,298.192 m), sill of auxiliary outlet, and 7,766.00 ft (2,367.077 m), crest of spillway. Dead storage below elevation 7,540.00 ft (2,298.192 m), 61 acre-ft (75,200 m³). Figures given are total contents.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 103,900 acre-ft (128 hm³) July 15, 1973, elevation, 7,767.56 ft (2,367.552 m); minimum after first filling, 48,000 acre-ft (59.2 hm³) May 13, 1971, elevation, 7,698.03 ft (2,346.360 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 101,000 acre-ft (125 hm³) July 30, elevation, 7,764.84 ft (2,366.723 m); minimum, 60,000 acre-ft (74.0 hm³) Apr. 25, elevation, 7,716.86 ft (2,352.099).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7,762.06	98,500	-
Oct. 31	7,758.87	95,400	-3,100
Nov. 30	7,752.40	89,400	-6,000
Dec. 31	7,744.93	82,700	-6,700
CAL YR 1981		-	-200
Jan. 31	7,737.05	76,100	-6,600
Feb. 28	7,729.13	69,700	-6,400
Mar. 31	7,720.57	63,300	-6,400
Apr. 30	7,718.07	61,500	-1,800
May 31	7,735.09	74,500	+13,000
June 30	7,764.45	101,000	+26,500
July 31	7,764.83	101,000	0
Aug. 31	7,764.43	101,000	0
Sept. 30	7,764.09	100,000	-1,000
WTR YR 1982			+1,500

ROARING FORK RIVER BASIN

09080300 ROCKY FORK CREEK NEAR MEREDITH, CO

LOCATION.--Lat 39°21'42", long 106°49'12", in NW¼NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, on right bank at upstream end of flume constructed to carry Rocky Fork Creek across spillway and auxiliary outlet of Ruedi Dam on Fryingpan River and 4.6 mi (7.4 km) west of Meredith.

DRAINAGE AREA.--12.3 mi^2 (31.9 km^2).

PERIOD OF RECORD.--September 1959 to July 1967 (discharge measurements only), October 1968 to September 1982 (discontinued).

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 7,494.50 ft (2,284.324 m) (U.S. Bureau of Reclamation benchmark).

REMARKS.--Records good. No diversion or regulation above station. Several observations of water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--14 years (water years 1969-82), 9.49 ft^3/s (0.269 m^3/s), 6,880 acre-ft/yr (8.48 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 101 ft^3/s (2.86 m^3/s) June 14, 1978, gage height, 1.74 ft (0.530 m); minimum daily, 1.4 ft^3/s (0.040 m^3/s) Jan. 5-7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 82.1 ft^3/s (2.33 m^3/s) was measured June 7, 1962, and a discharge of 0.24 ft^3/s (0.007 m^3/s) was measured Apr. 26, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 72 ft^3/s (2.04 m^3/s) at 1900 June 18, gage height, 1.52 ft (0.463 m), only peak above base of 50 ft^3/s (1.4 m^3/s); minimum daily, 2.5 ft^3/s (0.071 m^3/s) Feb. 19-26, Mar. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.6	3.2	3.4	3.6	3.0	4.5	9.1	44	41	12	7.5
2	3.6	3.8	3.2	3.4	3.2	2.8	4.0	10	44	37	11	7.0
3	3.6	4.0	3.2	3.4	3.2	2.8	3.8	11	41	34	11	7.0
4	3.8	4.0	3.4	3.4	3.2	2.8	3.8	14	41	31	10	7.0
5	3.8	4.0	3.2	3.6	3.2	2.8	3.8	21	45	29	9.0	7.5
6	3.8	4.0	3.2	3.2	3.2	2.8	3.6	21	49	28	8.0	7.5
7	3.8	4.3	3.2	3.2	3.2	2.8	3.6	19	51	25	8.5	7.0
8	4.0	4.3	3.2	3.2	3.2	3.0	3.8	16	53	26	8.0	6.8
9	4.3	4.0	3.2	3.2	3.2	2.8	4.0	15	55	24	9.0	6.5
10	4.3	4.0	3.2	3.2	3.2	2.8	3.8	14	56	22	9.0	6.5
11	4.5	4.0	3.2	3.2	3.0	2.8	4.3	14	57	20	9.0	7.0
12	4.0	4.0	3.4	3.2	2.8	2.8	6.5	14	59	18	8.4	8.0
13	4.0	3.6	3.4	3.2	2.8	3.2	6.8	15	63	18	8.1	7.5
14	4.3	3.6	3.4	3.0	2.8	2.8	6.8	15	62	17	7.8	7.5
15	4.0	3.6	3.4	3.0	2.7	2.7	6.8	14	60	16	7.8	7.0
16	4.5	3.4	3.2	3.0	2.7	2.8	7.1	14	59	15	7.4	7.0
17	5.0	3.4	3.2	3.0	2.7	2.8	7.1	13	62	14	7.5	6.5
18	5.0	3.6	3.4	3.2	2.7	2.8	7.1	13	69	14	7.5	6.5
19	4.7	3.4	3.4	3.2	2.5	3.0	7.4	13	68	13	7.0	6.5
20	4.5	3.4	3.4	3.4	2.5	2.7	7.4	16	64	12	7.0	6.5
21	4.5	3.4	3.6	3.4	2.5	2.5	7.1	18	60	12	7.0	6.5
22	4.3	3.6	3.4	3.2	2.5	2.8	7.1	19	57	12	7.0	6.5
23	4.3	3.6	3.4	2.8	2.5	2.7	7.1	22	56	12	7.0	6.5
24	4.3	3.6	3.4	2.8	2.5	2.7	7.1	25	54	11	7.0	6.0
25	4.0	3.4	3.4	2.8	2.5	2.7	7.1	27	52	11	7.1	6.0
26	3.8	3.4	3.4	3.0	2.5	2.8	7.1	26	51	12	8.0	6.0
27	3.8	3.2	3.6	3.2	2.8	3.0	8.1	34	49	11	7.5	6.0
28	3.8	3.2	3.6	3.2	3.0	3.2	7.8	38	48	11	7.5	6.0
29	3.8	3.2	3.4	3.2	---	3.4	8.4	43	46	12	7.5	6.0
30	3.8	3.2	3.4	3.4	---	3.4	9.1	44	44	13	7.5	6.0
31	3.6	---	3.4	3.6	---	3.6	---	43	---	13	7.5	---
TOTAL	127.3	109.8	103.6	99.2	80.4	89.6	182.0	630.1	1619	584	253.6	201.8
MEAN	4.11	3.66	3.34	3.20	2.87	2.89	6.07	20.3	54.0	18.8	8.18	6.73
MAX	5.0	4.3	3.6	3.6	3.6	3.6	9.1	44	69	41	12	8.0
MIN	3.6	3.2	3.2	2.8	2.5	2.5	3.6	9.1	41	11	7.0	6.0
AC-FT	252	218	205	197	159	178	361	1250	3210	1160	503	400

CAL YR 1981 TOTAL 2660.8 MEAN 7.29 MAX 43 MIN 2.7 AC-FT 5280
WTR YR 1982 TOTAL 4080.4 MEAN 11.2 MAX 69 MIN 2.5 AC-FT 8090

09080400 FRYINGPAN RIVER NEAR RUEDI, CO

LOCATION.--Lat 39°21'56", long 106°49'30", in SE¼SE¼ sec.12, T.8 S., R.85 W., Eagle County, Hydrologic Unit 14010004, on right bank 0.4 mi (0.6 km) downstream from Rocky Fork Creek and Ruedi Dam, 1.5 mi (2.4 km) west of former site of Ruedi, and 12.5 mi (20.1 km) east of Basalt.

DRAINAGE AREA.--238 mi^2 (616 km^2).

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,473.25 ft (2,277.847 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 7, 1970, at site 2.0 mi (3.2 km) downstream at different datum.

REMARKS.--Records good. Diversions for irrigation of hay meadows above station. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Flow regulated by Ruedi Reservoir (station 09080190) since May 18, 1968. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years (water years 1968-82), 173 ft^3/s (4.899 m^3/s), 125,300 acre-ft/yr (154 hm^3/yr), subsequent to completion of Ruedi Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,690 ft^3/s (76.2 m^3/s) June 18, 1965, gage height, 5.16 ft (1.573 m), site and datum then in use; minimum daily, 16 ft^3/s (0.45 m^3/s) Feb. 2, 1968 (result of storage in Ruedi Reservoir); minimum daily prior to construction of Ruedi Reservoir, 28 ft^3/s (0.79 m^3/s) Mar. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 542 ft^3/s (15.3 m^3/s) July 2, gage height, 2.62 ft (0.799 m); minimum daily, 59 ft^3/s (1.67 m^3/s) Apr. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	157	152	157	157	157	154	154	203	470	214	157
2	82	157	152	157	157	157	154	154	203	542	214	157
3	82	157	152	157	157	154	152	154	203	542	214	157
4	82	157	152	157	157	154	152	154	203	542	214	157
5	82	157	152	157	157	154	150	160	207	542	214	157
6	82	157	152	157	157	154	149	165	211	536	214	157
7	82	157	154	157	157	158	149	163	211	524	214	157
8	82	157	154	157	157	158	149	162	214	431	214	157
9	82	157	154	157	157	152	149	162	214	426	171	157
10	82	159	157	157	157	152	149	162	214	370	157	157
11	82	159	157	157	157	152	149	162	214	370	157	157
12	82	159	159	159	157	152	149	162	214	350	159	157
13	82	159	159	159	157	152	149	162	221	281	159	157
14	82	159	159	159	154	152	149	162	221	221	159	157
15	82	159	159	159	154	152	151	162	225	221	159	157
16	100	159	159	159	154	152	152	162	221	221	159	159
17	111	113	159	159	154	152	152	165	221	221	159	159
18	111	85	159	159	154	152	152	165	225	221	159	159
19	111	107	159	159	154	152	152	165	225	221	159	159
20	133	159	159	159	154	152	152	165	221	221	159	159
21	149	159	159	159	154	152	152	165	221	221	159	159
22	154	159	159	159	154	152	152	165	221	221	157	159
23	154	159	157	159	154	152	152	165	221	221	157	162
24	154	159	157	159	154	152	152	165	221	221	157	162
25	157	159	157	159	154	152	152	165	221	218	157	162
26	157	159	157	159	154	152	152	171	221	218	157	162
27	157	159	157	157	157	152	129	183	221	214	157	162
28	157	159	157	157	157	152	59	196	218	214	157	162
29	157	157	157	157	---	154	59	203	218	214	157	162
30	157	157	157	157	---	154	96	203	355	214	157	162
31	157	---	157	157	---	154	---	203	---	214	157	---
TOTAL	3506	4576	4850	4897	4357	4748	4269	5206	6629	9863	5357	4764
MEAN	113	153	156	158	156	153	142	168	221	318	173	159
MAX	157	159	159	159	157	158	154	203	355	542	214	162
MIN	82	85	152	157	154	152	59	154	203	214	157	157
AC-FT	6950	9080	9620	9710	8640	9420	8470	10330	13150	19560	10630	9450

CAL YR 1981 TOTAL 41641 MEAN 114 MAX 329 MIN 29 AC-FT 82590
WTR YR 1982 TOTAL 63022 MEAN 173 MAX 542 MIN 59 AC-FT 125000

NOTE.--NO GAGE-HEIGHT RECORD APR. 3 TO MAY 16.

09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO

LOCATION.--Lat 39°13'56", long 107°13'36", in SE¼SW¼ sec.33, T.9 S., R.88 W., Pitkin County, Hydrologic Unit 14010004, on right bank 1.2 mi (1.9 km) upstream from Avalanche Creek and 3.6 mi (5.8 km) north of Redstone.

DRAINAGE AREA.--167 mi^2 (433 km^2).

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,905 ft (2,015 m), from river-profile map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. A few small diversions for irrigation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 286 ft^3/s (8.100 m^3/s), 207,200 acre-ft/yr (255 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,980 ft^3/s (113 m^3/s) July 1, 1957, gage height, 5.65 ft (1.722 m); minimum daily, 22 ft^3/s (0.62 m^3/s) Dec. 5, 1955, Feb. 15, 1964, Jan. 2, Feb. 17, 18, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,110 ft^3/s (59.8 m^3/s) at 2400 June 28, gage height, 4.76 ft (1.451 m), only peak above base of 2,000 ft^3/s (56.6 m^3/s); minimum daily, 38 ft^3/s (1.08 m^3/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	97	50	65	58	54	103	651	1040	1800	465	172
2	60	98	60	44	58	60	108	804	1040	1570	436	162
3	73	98	68	50	51	65	103	883	1040	1400	399	154
4	116	100	63	54	56	60	102	945	989	1340	373	149
5	155	98	67	67	52	56	101	934	1150	1210	349	203
6	127	99	67	63	40	53	98	698	1160	1020	327	185
7	130	105	67	53	41	54	91	590	1130	902	314	160
8	140	101	65	47	47	53	82	551	1210	898	302	160
9	124	92	60	58	55	56	86	544	1260	978	307	165
10	108	90	63	56	62	56	87	532	1350	887	301	161
11	111	90	67	56	60	58	109	513	1340	918	274	234
12	136	84	65	60	53	94	211	486	1380	932	293	325
13	132	85	65	63	58	79	253	452	1450	968	288	315
14	137	87	63	67	53	81	317	378	1330	946	314	284
15	129	86	67	71	56	86	398	339	1320	938	282	266
16	142	86	67	55	53	82	389	325	1300	867	269	294
17	130	84	63	62	53	84	363	325	1410	832	249	301
18	116	85	51	64	50	81	367	353	1610	792	242	283
19	115	81	71	67	48	82	353	411	1560	745	240	261
20	112	76	60	70	50	78	333	430	1380	723	232	329
21	109	85	60	71	52	73	317	494	1400	694	247	324
22	103	81	60	65	53	73	326	636	1460	683	239	292
23	98	75	54	62	54	76	344	744	1590	703	232	272
24	99	74	38	64	53	79	353	777	1540	729	217	258
25	95	76	50	67	52	82	364	765	1600	661	228	238
26	91	70	56	71	50	88	369	786	1620	612	255	238
27	93	67	50	56	52	88	366	1020	1610	652	215	285
28	92	67	53	51	55	94	421	1100	1730	681	216	289
29	96	66	65	58	---	101	470	1110	1830	680	199	272
30	96	61	65	56	---	94	540	1110	1700	606	189	279
31	90	---	64	54	---	84	---	981	---	524	192	---
TOTAL	3415	2544	1884	1867	1475	2304	7924	20667	41529	27891	8685	7310
MEAN	110	84.8	60.8	60.2	52.7	74.3	264	667	1384	900	280	244
MAX	155	105	71	71	62	101	540	1110	1830	1800	465	329
MIN	60	61	38	44	40	53	82	325	989	524	189	149
AC-FT	6770	5050	3740	3700	2930	4570	15720	40990	82370	55320	17230	14500

CAL YR 1981 TOTAL 69443 MEAN 190 MAX 1600 MIN 29 AC-FT 137700
WTR YR 1982 TOTAL 127495 MEAN 349 MAX 1830 MIN 38 AC-FT 252900

NOTE.--NO GAGE-HEIGHT RECORD FEB. 13 TO APR. 1.

ROARING FORK RIVER BASIN

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°32'37", long 107°19'44", in SW¼SE¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010004, on left bank at Glenwood Springs, 2,100 ft (640 m) upstream from mouth.

DRAINAGE AREA.--1,451 mi² (3,758 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to September 1909, September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Roaring Fork at Glenwood Springs.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,720.73 ft (1,743.679 m), National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft (240 m) downstream at different datum. Nov. 20, 1915, to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions above station for irrigation of about 35,000 acres (142 km²). Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925, Twin Lakes tunnel since 1935, and Charles H. Boustead tunnel since 1972 (see elsewhere in this report). Natural flow of stream affected by storage in Ruedi Reservoir on Fryingpan River (station 09080190) since May 1968.

AVERAGE DISCHARGE.--65 years (water years 1906-9, 1911-71), 1,368 ft³/s (38.74 m³/s), 991,100 acre-ft/yr (1,220 hm³/yr), prior to diversion through Charles H. Boustead tunnel; 11 years (water years 1972-82), 1,122 ft³/s (31.78 m³/s), 812,900 acre-ft/yr (1,002 hm³/yr), subsequent to diversions through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft³/s (538 m³/s) July 1, 1957, gage height, 8.65 ft (2.633 m); maximum gage height, 8.7 ft (2.65 m) June 14, 1921, from floodmarks; minimum discharge, 145 ft³/s (4.11 m³/s) Jan. 21, 1935, gage height, 0.65 ft (0.198 m); minimum daily, 179 ft³/s (5.07 m³/s) Jan. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 446 ft³/s (12.6 m³/s) Feb. 3, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	478	725	558	550	486	518	574	1500	3050	5400	1720	887
2	486	734	582	534	478	534	558	1860	3050	5000	1650	860
3	510	734	608	542	446	558	534	2340	3050	4770	1540	842
4	566	716	582	526	502	534	558	2690	2990	4670	1480	833
5	743	716	590	582	486	510	566	2770	3050	4400	1390	932
6	671	698	582	534	446	486	558	2110	3090	3970	1320	960
7	662	707	582	486	470	510	558	1780	3050	3640	1270	896
8	671	698	574	462	590	510	534	1590	3070	3390	1190	887
9	698	689	582	534	590	502	534	1540	3130	3570	1170	896
10	680	662	590	608	608	510	526	1510	3330	3300	1170	896
11	680	662	574	617	550	518	550	1480	3690	3300	1140	1010
12	761	662	574	608	534	653	716	1430	3590	3280	1160	1240
13	761	662	566	558	526	599	833	1480	3880	3280	1190	1250
14	752	662	566	534	526	582	923	1350	3710	3090	1240	1250
15	734	644	599	526	502	582	1030	1230	3780	3130	1210	1170
16	806	635	590	518	494	574	1030	1180	3520	2950	1180	1190
17	806	617	566	518	486	574	941	1150	3880	2770	1170	1160
18	761	574	510	510	462	558	980	1190	4720	2610	1180	1140
19	761	550	574	518	462	550	990	1290	4600	2440	1100	1120
20	752	574	590	510	478	534	932	1360	4100	2370	1040	1170
21	761	626	574	510	478	502	860	1380	4120	2240	1040	1200
22	761	635	566	502	510	510	842	1620	4170	2240	1020	1100
23	743	635	526	502	534	510	905	1920	4370	2290	1020	1080
24	752	617	470	510	510	510	941	2050	4420	2260	960	1140
25	743	608	534	510	510	510	950	2110	4540	2160	950	1100
26	725	644	574	494	502	542	1010	2080	4600	2030	1040	1100
27	725	566	574	502	502	550	1020	2730	4540	2070	990	1170
28	716	599	526	478	502	566	960	2990	4920	2240	960	1200
29	734	608	550	502	---	599	1140	3050	5370	2440	932	1160
30	761	617	574	486	---	574	1200	3030	5500	2190	905	1150
31	734	---	550	478	---	542	---	3050	---	1880	896	---
TOTAL	21894	19476	17557	16249	14170	16811	24253	58840	116880	95370	36223	31989
MEAN	706	649	566	524	506	542	808	1898	3896	3076	1168	1066
MAX	806	734	608	617	608	653	1200	3050	5500	5400	1720	1250
MIN	478	550	470	462	446	486	526	1150	2990	1880	896	833
AC-FT	43430	38630	34820	32230	28110	33340	48110	116700	231800	189200	71850	63450

CAL YR 1981 TOTAL 274589 MEAN 752 MAX 4110 MIN 312 AC-FT 544600
WTR YR 1982 TOTAL 469712 MEAN 1287 MAX 5500 MIN 446 AC-FT 931700

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1958 to August 1961, May 1962 to September 1967, January 1970 to May 1972, January 1980 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to September 1967, January 1980 to current year.
WATER TEMPERATURE: May 1962 to May 1967, January 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office. Water-quality data for the 1981 water year will be published in this report.

COOPERATION.--Chemical-quality data are furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1160 micromhos July 12, 1981; minimum, 162 micromhos June 27, 1980.
WATER TEMPERATURES: Maximum, 23.0°C Aug. 3, 1981; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 727 micromhos Oct. 3; minimum, 208 micromhos June 28.
WATER TEMPERATURES: Maximum, 19.0°C Aug. 19, 24; minimum recorded, 0.5°C several days during December to February.

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT										
03...	--	920	730	730	8.1	11.0	296	90	17	37
10...	1120	759	700	728	8.2	10.0	308	95	17	38
16...	1355	719	695	644	8.2	7.5	292	90	16	29
23...	1040	960	650	657	8.3	4.5	288	90	16	28
28...	0815	932	640	649	8.0	3.5	282	88	15	27
NOV										
04...	1000	896	620	655	8.1	7.0	278	87	15	28
14...	--	905	640	618	8.3	5.0	270	84	15	26
21...	1130	920	660	646	7.9	1.0	288	89	16	29
25...	1140	586	660	597	8.3	3.0	274	85	15	27
DEC										
04...	1130	800	605	637	7.6	4.5	276	86	15	27
11...	1100	895	650	662	8.3	.5	290	90	16	29
17...	1230	759	620	618	7.9	2.5	282	88	15	28
24...	1215	719	610	619	8.0	2.0	278	86	15	28
31...	1430	650	650	636	7.9	2.5	284	88	16	29
JAN										
05...	1400	672	650	662	8.2	1.5	286	88	16	29
16...	1430	640	570	633	8.2	3.0	278	86	16	29
22...	1030	377	680	662	8.1	.3	294	91	16	30
29...	1715	642	650	555	8.3	4.0	278	86	16	30
FEB										
06...	1230	612	630	655	8.2	.5	292	90	16	31
13...	1550	568	700	665	8.3	3.5	286	89	16	33
20...	1130	605	645	645	8.2	5.0	284	88	16	31
26...	0830	363	650	648	8.1	3.5	282	87	16	31
MAR										
06...	1100	567	700	692	8.3	5.5	290	90	16	32
13...	1200	332	680	680	8.2	6.5	294	90	17	33
18...	0945	552	650	651	8.6	4.5	282	86	16	31
25...	1130	330	690	648	8.2	6.5	292	90	17	32
APR										
01...	1400	480	660	692	8.5	8.5	281	86	16	30
10...	1020	420	760	651	8.1	10.0	280	86	16	27
17...	1040	620	480	498	7.7	10.5	216	68	11	18
24...	1300	830	400	390	8.9	12.1	160	50	8.8	15
30...	1100	1160	300	338	7.9	9.5	139	44	7.0	11
MAY										
06...	1900	1190	340	358	8.1	12.0	155	49	7.7	12
15...	1335	711	510	514	8.5	10.0	226	72	11	21
21...	1800	755	505	503	8.2	11.0	208	66	10	21
30...	1230	2170	310	317	7.9	12.0	135	43	6.5	9.2
JUN										
04...	1100	2580	300	284	7.9	11.2	124	40	5.7	7.4
12...	0945	3900	215	232	8.0	10.0	102	33	4.6	5.3
19...	1030	1580	430	390	8.2	11.0	165	52	8.5	13
26...	1120	1540	400	394	8.0	14.5	174	56	8.3	13
01...	1130	1210	480	435	8.5	15.0	200	65	9.3	16
10...	1230	1200	505	467	8.1	16.0	204	65	10	17
16...	1200	970	560	509	8.2	15.5	232	74	11	21
22...	1500	767	590	493	8.4	18.0	202	59	13	27
31...	1150	582	700	650	8.3	16.5	286	90	15	36
AUG										
06...	0830	411	790	711	8.1	19.5	302	94	16	44
12...	1630	420	740	684	8.3	18.0	282	86	17	40
21...	1330	458	780	649	8.2	16.5	244	70	17	44
26...	1530	424	800	674	8.3	19.0	256	74	18	46
SEP										
04...	1200	430	780	726	8.2	16.0	304	93	18	32
11...	0930	590	710	660	8.1	14.0	286	89	16	33
18...	1400	560	690	633	8.3	14.5	272	83	16	33
21...	1110	519	680	661	8.3	12.5	282	89	15	31

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1980 TO SEPTEMBER 1981

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	CARBON DIOXIDE DIS-SOLVED (MG/L AS CO2)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT										
03...	1.0	2.0	183	.00	2.3	162	50	469	.64	1160
10...	1.0	2.0	193	.00	1.9	162	49	485	.66	994
16...	.8	2.0	186	.00	1.9	152	36	447	.61	868
23...	.7	2.0	165	12	1.3	140	32	438	.60	1140
28...	.7	2.0	183	.00	2.9	144	36	426	.58	1070
NOV										
04...	.8	2.0	177	.00	2.2	144	34	436	.59	1050
14...	.7	2.0	159	5.0	1.3	144	29	455	.62	1110
21...	.8	2.0	176	.00	3.5	144	33	436	.59	1080
25...	.7	2.0	137	19	1.1	136	34	404	.55	639
DEC										
04...	.7	2.0	173	.00	6.9	151	33	436	.59	942
11...	.8	2.0	127	12	1.0	160	35	430	.58	1040
17...	.7	2.0	170	.00	3.4	146	33	440	.60	902
24...	.8	2.0	168	.00	2.7	156	34	405	.55	786
31...	.8	2.0	168	.00	3.4	158	36	414	.56	727
JAN										
08...	.8	2.0	173	.00	1.7	166	34	460	.63	835
16...	.8	2.0	170	.00	1.7	160	36	455	.62	786
22...	.8	2.0	177	.00	2.2	162	37	466	.63	474
29...	.8	2.0	154	5.0	1.2	152	36	445	.61	771
FEB										
06...	.8	2.0	176	.00	1.8	164	39	459	.62	758
13...	.9	2.0	151	.00	1.2	166	41	461	.63	707
20...	.8	2.0	175	.00	1.8	166	37	453	.62	740
26...	.8	2.0	178	.00	2.2	162	37	454	.62	445
MAR										
06...	.9	2.0	142	19	1.1	166	37	449	.61	687
13...	.9	2.0	177	.00	1.8	160	38	468	.64	420
18...	.8	2.0	107	29	.4	166	37	432	.59	644
25...	.8	2.0	176	.00	1.6	162	38	451	.61	402
APR										
01...	.8	2.0	132	20	.7	156	34	449	.61	582
10...	.7	2.0	169	.00	2.1	158	30	422	.57	479
17...	.6	2.0	139	.00	4.4	109	20	333	.45	557
24...	.5	1.0	73	14	.1	66	25	255	.35	571
30...	.4	1.0	100	.00	2.0	62	12	204	.28	639
MAY										
06...	.4	1.0	104	.00	1.3	74	12	218	.30	700
15...	.6	2.0	130	5.0	.7	113	23	335	.46	643
21...	.7	2.0	135	.00	1.4	101	23	322	.44	656
30...	.4	1.0	99	.00	2.0	60	9.2	178	.24	1040
JUN										
04...	.3	1.0	95	.00	1.9	51	5.7	158	.21	1100
12...	.2	1.0	81	.00	1.3	38	4.3	126	.17	1330
19...	.5	1.0	121	.00	1.2	73	15	222	.30	947
26...	.4	1.0	116	.00	1.8	76	17	228	.31	948
01...	.5	2.0	117	11	.6	84	18	261	.36	853
10...	.5	2.0	137	.00	1.7	98	21	280	.38	907
16...	.6	2.0	152	.00	1.5	109	26	318	.43	833
22...	.9	2.0	100	2.0	.6	119	36	307	.42	636
31...	1.0	2.0	178	6.0	1.4	131	47	414	.56	651
AUG										
06...	1.2	2.0	198	.00	2.5	141	62	457	.62	507
12...	1.1	2.0	153	9.0	1.2	145	59	432	.59	490
21...	1.3	2.0	120	.00	1.2	153	62	407	.55	503
26...	1.3	2.0	121	5.0	1.0	158	64	426	.58	488
SEP										
04...	.8	2.0	192	.00	1.9	152	60	463	.63	538
11...	.9	2.0	198	.00	2.5	109	45	391	.53	623
18...	.9	2.0	162	6.0	1.3	137	45	402	.55	608
21...	.8	2.0	177	6.0	1.4	142	45	416	.57	583

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT									
01...	1245	455	690	663	13.0	285	86	17	37
08...	1515	620	680	585	11.0	249	75	15	31
16...	1230	735	640	575	9.0	262	82	14	25
22...	1550	750	610	554	9.0	245	75	14	25
29...	1145	720	590	564	8.0	251	79	13	24
NOV									
05...	1445	680	650	600	7.0	253	80	13	24
11...	1620	670	750	561	6.0	255	79	14	25
19...	1100	580	650	582	3.5	262	80	15	27
27...	1330	570	610	596	2.0	262	82	14	27
DEC									
03...	1230	610	600	550	3.5	246	77	13	24
10...	1340	590	540	514	2.5	258	82	13	25
17...	1255	582	540	568	.0	253	80	13	24
24...	1235	470	670	655	.5	287	90	15	30
30...	1115	560	480	503	1.0	256	81	13	23
JAN									
07...	1530	480	620	524	.0	266	85	13	28
14...	1300	500	560	555	.5	256	81	13	25
21...	1030	532	600	559	2.0	261	83	13	25
29...	1415	486	610	610	4.0	245	80	11	25
FEB									
04...	1330	580	580	630	.5	257	83	12	24
12...	1250	565	580	620	.5	250	82	11	24
18...	1600	--	560	554	5.0	247	79	12	25
25...	1635	--	590	565	5.5	253	80	13	25
MAR									
04...	1430	--	600	556	6.0	247	79	12	23
11...	1310	--	640	610	2.5	256	81	13	24
18...	1415	550	575	590	6.0	256	81	13	21
25...	1000	520	600	620	5.0	262	82	14	23
APR									
01...	1145	580	560	600	6.5	257	80	14	23
09...	1420	530	570	600	7.5	248	78	13	22
14...	1450	900	440	460	10.0	203	63	11	15
23...	1000	914	445	470	7.0	196	62	9.9	22
29...	1345	1130	380	390	8.5	166	52	8.8	13
MAY									
07...	1300	1750	310	330	6.5	149	47	7.7	6.7
13...	1745	1750	350	370	7.0	162	52	7.7	13
21...	1135	1370	350	360	9.5	164	51	8.8	13
28...	1110	3120	270	300	9.0	130	41	6.6	8.7
JUN									
01...	1315	--	--	--	--	--	--	--	8.0
04...	1200	2990	280	310	9.0	131	41	7.0	9.0
10...	1315	3710	270	280	9.5	115	36	6.0	8.0
18...	1110	5690	220	250	8.0	115	36	6.0	10

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
JUN										
23...	1120	4560	260	240	8.5	107	33	6.0	8.0	.4
JUL										
02...	0730	5900	320	240	8.0	101	34	4.0	9.0	.4
06...	1055	3300	290	320	10.5	139	44	7.0	13	.5
16...	1230	3000	290	340	11.0	145	45	8.0	10	.4
22...	0800	2320	340	350	12.5	155	49	8.0	12	.4
30...	1045	2370	350	370	13.0	155	49	8.0	9.0	.3
AUG										
05...	1245	1260	440	460	14.5	189	59	10	14	.5
12...	1215	1220	490	510	15.0	205	64	11	18	.6
18...	1330	1090	500	540	16.0	219	68	12	18	.6
26...	1440	1090	470	560	15.5	227	71	12	20	.6
SEP										
03...	1040	842	580	630	13.0	253	80	13	26	.7
10...	1100	970	600	580	12.5	228	70	13	25	.7
16...	1530	1170	505	530	14.0	213	67	11	21	.7
24...	--	1120	440	520	11.5	208	65	11	24	.8
30...	1145	1120	450	520	9.5	210	66	11	18	.6

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
01...	1.0	2.0	160	4.0	140	49	420	.57	516
08...	.9	2.0	140	7.0	140	41	373	.51	624
16...	.7	2.0	170	3.0	130	30	366	.50	726
22...	.7	2.0	130	7.0	130	28	358	.49	725
29...	.7	2.0	140	8.0	130	29	354	.48	688
NOV									
05...	.7	2.0	110	24	140	32	367	.50	674
11...	.7	2.0	140	10	140	29	361	.49	653
19...	.8	2.0	140	10	140	33	376	.51	589
27...	.8	1.0	140	9.0	140	33	373	.51	574
DEC									
03...	.7	1.0	130	10	130	30	350	.48	576
10...	.7	1.0	130	10	130	34	360	.49	573
17...	.7	2.0	120	7.0	140	34	356	.48	559
24...	.8	2.0	120	20	120	43	385	.52	489
30...	.7	1.0	110	19	110	32	332	.45	502
JAN									
07...	.8	2.0	130	10	160	39	400	.54	518
14...	.7	2.0	130	11	130	34	359	.49	485
21...	.7	2.0	120	16	150	32	381	.52	547
29...	.7	1.0	110	13	110	36	333	.45	437
FEB									
04...	.7	1.0	130	11	130	32	352	.48	551
12...	.7	1.0	120	13	120	32	345	.47	526
18...	.7	2.0	88	22	180	18	378	.51	--
25...	.7	2.0	110	16	160	30	378	.51	--
MAR									
04...	.7	2.0	120	12	160	30	380	.52	--
11...	.7	3.0	150	.00	140	32	360	.49	--
18...	.6	2.0	120	13	140	30	370	.50	549
25...	.6	2.0	130	12	140	25	360	.49	505
APR									
01...	.6	2.0	130	13	150	25	370	.50	579
09...	.6	3.0	130	6.0	120	23	330	.45	472
14...	.5	3.0	120	7.0	98	12	270	.37	656
23...	.7	2.0	130	.00	94	16	270	.37	666
29...	.5	2.0	120	6.0	76	12	230	.31	702
MAY									
07...	.2	4.0	110	.00	62	8.5	190	.26	898
13...	.5	5.0	110	2.0	74	17	220	.30	1040
21...	.5	4.0	110	6.0	70	12	220	.30	814
28...	.3	2.0	110	.00	52	7.8	170	.23	1430
JUN									
01...	--	--	--	--	--	--	--	--	--
04...	.4	2.0	100	.00	48	7.0	170	.23	1370
10...	.3	2.0	94	.00	39	5.0	140	.19	1400
16...	.4	3.0	96	.00	40	4.0	150	.20	2300

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE, FET-LAB (MG/L AS HCO3)	CAR-BONATE, FET-LAB (MG/L AS CO3)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
JUN									
23...	4.0	89	.00	--	40	5.0	140	.19	1720
JUL									
02...	3.0	85	1.0	--	39	4.0	140	.19	2230
08...	2.0	110	.00	--	58	7.0	180	.24	1600
16...	.4	100	2.0	--	60	10	190	.26	1540
22...	.4	120	.00	--	65	8.0	200	.27	1250
30...	1.0	--	--	99	66	9.0	200	.27	1280
AUG									
05...	1.3	--	--	120	85	15	250	.34	850
12...	1.4	--	--	120	96	20	290	.39	955
18...	1.4	--	--	130	100	20	300	.41	883
26...	1.7	--	--	140	100	23	320	.44	942
SEP									
03...	2.2	--	--	150	120	30	360	.49	818
10...	2.3	--	--	130	110	29	330	.45	864
16...	1.8	--	--	130	100	23	300	.41	948
24...	.7	--	--	120	89	24	290	.39	877
30...	3.0	--	--	120	100	22	290	.39	877

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	698	606	613	567	616	613	561	344	276	234	385	575
2	712	611	608	564	620	613	555	316	274	243	397	585
3	706	613	599	574	634	608	560	290	276	252	410	602
4	690	617	602	599	623	600	559	270	282	252	422	610
5	622	593	592	558	647	608	556	271	270	259	445	596
6	654	580	585	538	672	616	553	298	267	273	454	577
7	603	579	576	599	---	---	554	310	277	286	455	590
8	662	584	567	646	---	---	565	311	270	306	464	600
9	645	588	572	606	---	---	565	311	269	304	482	596
10	656	592	576	574	---	---	573	321	263	313	483	603
11	661	602	580	564	---	622	565	334	264	309	498	594
12	632	607	578	550	594	586	529	342	259	308	500	522
13	629	607	582	559	598	---	---	355	249	304	492	502
14	632	605	584	562	584	---	---	379	254	310	491	508
15	636	603	580	562	574	---	409	386	255	307	495	528
16	---	604	579	566	576	---	394	396	259	318	510	530
17	---	604	587	572	574	---	413	399	245	326	519	530
18	615	635	612	578	581	584	416	397	232	325	514	522
19	619	650	598	582	596	585	413	380	238	329	521	524
20	620	633	583	589	593	584	418	376	255	332	526	517
21	608	613	587	598	600	483	435	379	256	336	524	492
22	612	605	588	600	597	487	437	351	256	348	524	508
23	618	603	607	618	595	559	437	326	242	330	516	515
24	619	602	660	603	594	581	423	319	230	323	528	481
25	606	605	633	598	600	594	413	317	234	---	535	497
26	610	599	607	604	607	592	404	322	223	---	515	504
27	605	618	588	603	613	580	401	291	227	---	525	497
28	605	608	612	617	606	566	399	276	224	---	539	490
29	594	609	610	607	---	563	377	268	221	---	551	505
30	589	596	581	620	---	572	372	266	226	---	561	509
31	597	---	570	618	---	575	---	279	---	367	568	---
MEAN	635	606	593	587	604	581	473	328	252	304	495	540

WTR YR 1982 MEAN 499 MAX 712 MIN 221

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.5	11.5	8.0	5.0	1.5	.5	2.0	1.0	3.0	1.0	6.5	3.5
2	15.0	11.5	8.0	5.0	3.0	1.0	1.5	.5	3.0	.5	7.5	5.0
3	14.0	12.0	8.0	5.0	---	---	.5	.5	1.0	.5	7.5	5.5
4	13.0	11.5	8.0	4.5	3.0	1.0	.5	.5	.5	.5	6.5	3.5
5	14.5	11.0	7.5	4.5	4.0	1.5	1.5	.5	.5	.5	5.5	3.0
6	15.0	10.5	7.5	4.5	3.5	1.0	1.5	.5	.5	.5	5.5	1.0
7	15.0	10.5	7.5	6.0	4.0	1.0	.5	.5	---	---	---	---
8	13.0	11.5	9.0	6.0	3.5	1.0	.5	.5	---	---	---	---
9	13.5	10.5	7.5	5.0	3.5	1.0	.5	.5	---	---	---	---
10	14.5	10.0	6.5	4.0	3.5	1.5	.5	.5	---	---	---	---
11	12.5	11.0	6.5	3.5	5.0	2.5	.5	.5	---	---	---	---
12	14.0	10.5	6.0	3.5	6.0	4.0	1.0	.5	1.0	.5	8.5	6.0
13	14.0	10.5	6.5	3.5	4.5	3.0	.5	.5	1.0	.5	---	---
14	13.0	11.0	7.0	5.0	3.0	2.0	1.0	.5	2.5	.5	---	---
15	12.0	9.5	8.5	6.0	4.0	2.5	2.0	.5	5.0	2.0	---	---
16	---	---	8.0	5.5	3.5	2.5	2.5	.5	4.0	2.0	---	---
17	---	---	6.5	4.5	2.5	1.0	3.0	.5	6.0	3.0	---	---
18	11.5	8.5	5.5	4.5	1.0	.5	3.0	.5	5.5	2.0	---	---
19	11.5	7.5	5.0	3.5	3.5	.5	4.0	1.5	5.0	1.0	6.5	4.5
20	11.0	7.0	4.5	1.5	5.0	3.0	3.5	2.0	5.5	2.0	6.0	3.0
21	11.0	7.0	6.0	3.5	4.0	3.0	3.5	1.5	6.0	1.5	5.5	1.5
22	10.5	7.0	6.0	5.0	3.5	2.0	1.5	.5	6.0	2.0	7.0	1.5
23	9.5	6.0	7.0	5.5	1.5	.5	.5	.5	5.5	3.5	7.5	2.5
24	8.5	7.5	7.0	4.5	.5	.5	2.5	.5	6.5	2.5	8.0	3.5
25	9.5	6.0	6.5	4.0	.5	.5	3.0	.5	7.0	3.5	9.5	4.0
26	9.5	5.5	3.5	2.0	.5	.5	3.5	.5	6.0	2.5	7.5	6.0
27	10.0	6.5	3.0	1.0	.5	.5	4.0	2.5	6.5	3.0	---	---
28	8.5	7.5	3.5	2.0	.5	.5	2.5	.5	8.0	4.0	11.0	6.5
29	9.0	7.5	3.5	2.5	.5	.5	4.0	1.0	---	---	7.0	3.0
30	7.0	5.5	3.0	1.5	2.5	.5	3.0	.5	---	---	7.5	2.5
31	7.5	4.5	---	---	2.5	1.0	3.0	1.0	---	---	8.5	5.0
MONTH	16.5	4.5	9.0	1.0	6.0	.5	4.0	.5	8.0	.5	11.0	1.0

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	12.0	8.0	11.5	7.5	12.5	9.5	17.0	12.5	17.5	12.5
2	7.5	4.5	12.0	7.0	12.0	8.0	13.0	8.0	16.0	13.5	17.5	12.0
3	9.0	3.0	11.0	8.0	11.5	8.5	13.5	8.5	16.0	13.5	17.0	12.0
4	10.0	5.5	9.5	7.0	12.5	7.5	13.0	9.0	17.0	13.0	16.0	12.5
5	7.5	3.5	8.5	6.0	12.0	8.0	12.5	9.0	18.0	12.5	15.0	13.5
6	7.5	5.5	9.0	3.5	11.5	7.0	13.5	9.0	18.0	13.0	16.5	11.5
7	7.5	4.5	9.0	5.0	12.0	6.5	13.5	9.0	17.5	13.0	15.0	12.0
8	7.0	2.0	11.5	6.5	12.5	7.5	12.0	9.5	17.5	13.5	14.5	12.0
9	8.5	3.5	11.0	7.5	12.0	7.0	12.5	10.5	17.0	14.5	16.5	11.0
10	9.5	3.5	11.5	7.0	11.0	7.5	14.0	9.0	16.0	13.0	15.0	12.5
11	11.0	5.5	10.0	7.5	12.5	8.0	14.0	10.0	16.0	12.5	14.0	12.5
12	12.0	8.5	9.0	7.0	11.5	8.0	15.0	10.0	15.5	13.5	14.0	11.5
13	---	---	7.0	5.5	11.0	8.0	13.5	10.5	16.5	13.0	12.0	10.0
14	---	---	10.0	6.0	11.5	7.5	15.0	10.5	17.0	13.5	10.0	9.0
15	9.5	6.0	10.5	6.5	11.5	7.5	14.5	10.5	17.5	13.0	13.5	9.0
16	9.0	5.5	11.5	7.0	13.0	8.0	15.0	10.0	18.0	14.0	15.0	10.0
17	9.5	3.5	12.0	7.5	12.0	8.5	14.0	11.5	16.0	13.5	14.5	12.0
18	9.5	5.5	11.5	8.0	11.5	8.0	15.0	11.0	17.5	16.0	13.5	11.0
19	7.5	4.5	11.0	9.0	10.5	7.5	16.0	11.0	19.0	14.0	13.0	10.5
20	5.5	3.5	12.5	8.0	13.0	7.5	16.0	11.5	18.5	14.0	13.5	11.0
21	8.5	2.0	13.5	7.5	12.0	8.5	17.0	12.0	18.0	14.5	14.0	10.0
22	11.0	4.5	12.5	8.5	11.5	8.5	17.0	12.5	18.0	14.5	14.5	10.5
23	10.0	6.5	11.5	9.0	11.5	8.5	16.5	12.0	18.0	13.5	16.0	11.5
24	12.0	6.5	11.5	7.5	12.5	8.0	15.5	13.0	19.0	14.5	15.0	11.5
25	11.5	7.0	11.5	7.5	12.0	8.5	---	---	16.5	13.5	13.0	11.0
26	9.5	7.0	14.0	8.0	13.0	8.5	---	---	17.5	13.0	13.5	11.0
27	10.5	6.5	12.0	8.0	13.5	8.5	---	---	17.0	13.0	13.0	11.0
28	12.0	6.0	11.0	8.0	14.0	9.0	---	---	17.0	13.0	11.0	9.0
29	10.0	7.0	12.0	7.0	13.5	9.0	---	---	17.0	13.0	12.0	8.0
30	12.5	6.0	10.0	7.5	12.5	9.0	---	---	15.5	12.5	12.0	9.0
31	---	---	12.5	7.0	---	---	17.0	12.5	17.0	12.5	---	---
MONTH	12.5	2.0	14.0	3.5	14.0	6.5	17.0	8.0	19.0	12.5	17.5	8.0
YEAR	19.0	.5										

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°33'18", long 107°20'13", in NW¼NW¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on left bank 0.6 mi (1.0 km) downstream from Roaring Fork River and 1.0 mi (1.6 km) northwest of Post Office in Glenwood Springs.

DRAINAGE AREA.--6,013 mi^2 (15,574 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,700.75 ft (1.737.589 m) Colorado State Highway Department datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres (445 km^2).

AVERAGE DISCHARGE.--16 years, 3,257 ft^3/s (92.24 m^3/s), 2,360,000 acre-ft/yr (2,910 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,500 ft^3/s (581 m^3/s) June 15, 1973, gage height, 9.48 ft^3/s (2.890 m); minimum daily, 870 ft^3/s (24.6 m^3/s) Feb. 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,600 ft^3/s (357 m^3/s) at 1000 June 29, gage height, 7.37 ft (2.246 m); minimum daily, 920 ft^3/s (26.1 m^3/s) Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1680	1220	1420	1380	1520	1380	3700	9200	11600	4360	2490
2	1440	1710	1240	1340	1350	1490	1420	4540	9140	11400	4090	2430
3	1470	1650	1370	1250	1250	1670	1380	5560	9020	10800	3860	2340
4	1610	1600	1440	1120	1280	1560	1410	6520	8670	10300	3700	2320
5	1940	1620	1370	1260	1160	1450	1420	7030	9180	9780	3500	2470
6	1830	1610	1330	1350	1020	1330	1400	6050	9480	9110	3370	2630
7	1800	1630	1330	1210	1040	1400	1410	5070	9260	8540	3280	2570
8	1740	1600	1330	992	1170	1340	1370	4560	9550	7910	3260	2500
9	1780	1600	1350	1070	1230	1380	1360	4540	9580	7820	3250	2470
10	1700	1560	1380	1160	1330	1390	1370	4700	9930	7430	3280	2430
11	1620	1520	1350	1290	1340	1370	1380	4740	9900	7220	3190	2580
12	1830	1510	1370	1370	1290	1650	1680	4730	10200	7040	3160	3030
13	1840	1510	1360	1400	1270	1650	1970	4950	10800	6900	3200	3160
14	1810	1520	1270	1390	1280	1570	2260	4640	10500	6550	3490	3150
15	1770	1510	1390	1400	1340	1610	2500	4290	10200	6260	3600	3030
16	1860	1520	1370	1420	1400	1620	2740	4110	9610	6020	3410	2990
17	1880	1490	1280	1420	1400	1620	2600	4060	10200	5790	3400	2970
18	1810	1440	1110	1420	1360	1540	2550	4150	11500	5500	3410	2920
19	1790	1400	1190	1430	1320	1480	2550	4360	11600	5210	3190	2770
20	1770	1380	1410	1430	1360	1430	2500	4570	10700	5010	3200	2810
21	1780	1440	1500	1410	1370	1360	2230	4690	10400	4900	3160	2830
22	1740	1450	1410	1410	1410	1300	2160	5180	10300	4740	3170	2710
23	1720	1460	1150	1310	1470	1340	2280	6020	10600	4700	3210	2650
24	1710	1410	920	1320	1480	1330	2500	6640	10800	4590	3120	2700
25	1700	1440	992	1360	1470	1330	2670	6830	11000	4510	3040	2650
26	1660	1420	1190	1400	1430	1370	2870	6770	11100	4310	3150	2640
27	1660	1250	1260	1420	1440	1400	2990	7650	11000	4400	3090	2730
28	1670	1400	1190	1340	1470	1420	2990	8310	11500	4620	2850	2800
29	1710	1370	1210	1370	---	1500	3140	8990	11900	5010	2740	2800
30	1800	1420	1370	1310	---	1500	3170	9400	11600	5060	2730	2810
31	1710	---	1490	1330	---	1370	---	9160	---	4770	2670	---
TOTAL	53620	45120	40142	41122	37110	45290	63650	176510	308420	207800	102130	81380
MEAN	1730	1504	1295	1327	1325	1461	2122	5694	10280	6703	3295	2713
MAX	1940	1710	1500	1430	1480	1670	3170	9400	11900	11600	4360	3160
MIN	1440	1250	920	992	1020	1300	1360	3700	8670	4310	2670	2320
AC-FT	106400	89500	79620	81570	73610	89830	126200	350100	611800	412200	202600	161400

CAL YR 1981 TOTAL 721653 MEAN 1977 MAX 8510 MIN 870 AC-FT 1431000
WTR YR 1982 TOTAL 1202294 MEAN 3294 MAX 11900 MIN 920 AC-FT 2385000

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO

Water-quality data for water year 1982 will be published in a subsequent report.

09085200 CANYON CREEK ABOVE NEW CASTLE, CO

LOCATION.--Lat 39°36'19", long 107°24'21", in NW¼NW¼ sec.24, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on right bank 200 ft (61 m) upstream from diversion headgate, 0.4 mi (0.6 km) upstream from East Canyon Creek, and 5.0 mi (8.0 km) northeast of New Castle.

DRAINAGE AREA.--23.8 mi^2 (61.6 km^2).

PERIOD OF RECORD.--March 1969 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1972(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,180 ft (1,884 m), from topographic map.

REMARKS.--Records good except for winter period which are fair. A few small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 49.6 ft^3/s (1.405 m^3/s), 35,940 acre-ft/yr (44.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 932 ft^3/s (26.4 m^3/s) June 8, 1975, gage height, 4.86 ft (1.481 m); maximum gage height, 5.15 ft (1.570 m) June 5, 1980; minimum daily discharge, 2.6 ft^3/s (0.07 m^3/s) Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft^3/s (10.8 m^3/s) at 0200 June 13, gage height, 4.54 ft (1.384 m), only peak above base of 350 ft^3/s (9.9 m^3/s); minimum daily, 8.5 ft^3/s (0.24 m^3/s) Jan. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	23	15	9.0	14	15	15	77	216	209	27	15
2	13	22	14	9.0	14	16	15	111	224	188	27	15
3	16	21	16	9.0	13	17	14	147	243	158	27	14
4	17	21	15	9.0	14	16	14	187	216	138	26	14
5	18	21	15	9.0	13	15	14	167	253	122	24	14
6	19	21	15	9.0	15	14	14	143	249	108	22	14
7	20	21	15	8.6	13	15	14	126	244	94	22	13
8	21	20	15	8.5	13	15	13	118	282	88	22	13
9	22	20	14	9.0	14	15	14	119	302	88	22	13
10	22	20	14	9.5	14	15	14	117	309	77	22	14
11	23	19	13	10	13	15	14	105	306	66	24	15
12	26	19	13	10	13	17	17	96	320	63	24	15
13	25	19	13	9.5	14	16	19	85	324	60	22	15
14	25	18	13	10	14	16	23	78	292	58	22	15
15	26	18	14	10	14	16	29	73	264	54	21	15
16	28	18	13	10	13	16	33	71	254	51	20	17
17	27	17	13	10	13	16	32	74	274	48	19	18
18	26	18	11	10	13	16	34	80	306	46	19	18
19	28	17	14	11	13	15	34	98	278	44	19	17
20	28	16	14	11	13	15	33	105	268	43	17	18
21	28	17	14	12	14	14	31	108	282	37	17	18
22	28	17	14	12	14	14	31	146	264	30	18	17
23	27	16	11	13	14	14	33	202	260	28	18	17
24	27	16	9.5	14	14	14	33	214	246	28	17	17
25	26	16	10	14	14	14	39	224	246	28	17	17
26	25	14	11	14	14	15	44	233	240	28	17	17
27	25	15	10	14	15	15	45	317	232	29	16	21
28	24	16	11	13	15	14	45	310	232	29	16	25
29	24	17	11	14	---	15	49	255	229	29	16	25
30	24	16	11	14	---	14	55	245	206	28	15	25
31	22	---	10	14	---	15	---	216	---	27	15	---
TOTAL	722	549	401.5	339.1	384	469	814	4647	7861	2124	630	501
MEAN	23.3	18.3	13.0	10.9	13.7	15.1	27.1	150	262	68.5	20.3	16.7
MAX	28	23	16	14	15	17	55	317	324	209	27	25
MIN	12	14	9.5	8.5	13	14	13	71	206	27	15	13
AC-FT	1430	1090	796	673	762	930	1610	9220	15590	4210	1250	994

CAL YR 1981 TOTAL 13660.7 MEAN 37.4 MAX 260 MIN 7.1 AC-FT 27100
WTR YR 1982 TOTAL 19441.6 MEAN 53.3 MAX 324 MIN 8.5 AC-FT 38560

09085300 EAST CANYON CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°36'33", long 107°26'03", in SE¼SE¼ sec.13, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on left bank at upstream side of Forest Service stock trail bridge, 0.6 mi (1.0 km) upstream from Possum Creek, 0.9 mi (1.4 km) upstream from mouth, and 6.0 mi (9.7 km) northeast of New Castle.

DRAINAGE AREA.--15.1 mi² (39.1 km²).

PERIOD OF RECORD.--March 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft (1,914 m), from topographic map.

REMARKS.--Records good. Small diversions above station for irrigation of hay meadows. Diversion by Buster No. 1 ditch about 100 ft (30 m) above gage began May 16, 1974; capacity of ditch, about 1.5 ft³/s (0.04 m³/s). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 22.7 ft³/s (0.643 m³/s), 16,450 acre-ft/yr (20.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 956 ft³/s (27.1 m³/s) June 11, 1978, gage height, 3.42 ft (1.042 m), from rating curve extended above 210 ft³/s (5.9 m³/s); minimum daily, 1.9 ft³/s (0.054 m³/s) Sept. 22, 23, 1981, Oct. 1, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 185 ft³/s (5.24 m³/s) at 0200 June 13, gage height, 2.66 ft (0.811 m); minimum daily, 1.9 ft³/s (0.054 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	7.1	5.6	3.1	5.0	5.7	3.1	34	125	100	13	5.2
2	3.0	7.1	6.1	3.2	5.0	6.2	3.1	54	121	82	13	5.8
3	6.9	7.3	5.9	3.2	5.0	6.1	2.8	81	127	69	15	5.1
4	11	7.6	5.7	3.2	5.0	5.6	3.1	95	122	59	13	5.3
5	11	7.4	5.7	3.2	5.0	5.0	3.1	75	130	50	12	9.0
6	7.4	7.4	5.6	2.8	5.3	4.6	3.1	58	126	50	11	8.0
7	6.0	8.1	5.5	2.8	5.3	4.8	2.9	55	120	42	11	7.0
8	5.7	7.6	5.4	3.0	5.3	4.6	2.6	52	130	38	11	7.0
9	5.7	8.0	5.3	3.0	5.3	4.5	2.7	52	150	42	12	6.9
10	5.0	9.0	5.4	3.2	5.3	4.0	2.4	48	160	35	12	7.2
11	5.0	8.6	5.3	3.2	5.3	4.4	2.9	39	150	32	14	9.6
12	6.3	8.2	5.3	3.2	5.3	5.1	5.7	34	154	26	16	8.4
13	5.5	8.3	5.6	3.2	5.3	4.6	6.5	27	162	26	14	8.8
14	6.3	7.9	6.1	3.2	5.3	4.5	10	24	154	23	13	9.9
15	7.1	7.7	6.1	3.2	5.0	4.4	13	21	137	21	12	12
16	9.3	7.3	5.9	3.2	4.6	4.3	13	20	121	20	11	13
17	8.0	7.1	5.6	3.2	4.4	3.9	13	22	134	20	9.2	11
18	7.2	6.9	5.0	3.2	4.8	3.9	14	27	144	17	7.8	7.4
19	7.0	6.3	6.4	3.3	4.9	3.9	13	35	137	15	7.6	6.2
20	6.9	6.5	6.3	3.7	5.0	3.9	11	35	121	14	7.7	6.9
21	6.8	7.3	6.2	3.9	5.1	3.4	10	41	121	15	7.5	6.4
22	6.5	6.7	5.8	4.0	5.8	3.4	11	61	124	15	7.9	5.7
23	6.5	6.5	3.8	4.0	5.9	3.4	12	79	118	13	7.2	5.4
24	6.6	6.4	3.8	4.0	5.8	3.2	11	81	112	14	6.7	5.3
25	6.3	6.1	3.8	4.1	5.5	3.3	12	88	112	15	6.8	5.5
26	6.2	5.0	3.8	4.5	5.6	3.5	13	94	112	19	6.4	6.5
27	6.5	6.3	3.8	4.8	5.7	3.6	12	126	103	26	6.6	10
28	6.7	6.4	3.8	5.0	5.6	3.5	14	151	103	21	6.6	12
29	6.7	6.5	3.8	5.0	---	3.6	17	149	103	18	6.0	14
30	7.4	6.0	3.7	5.0	---	3.4	22	143	95	16	5.0	14
31	6.7	---	3.5	5.0	---	3.2	---	124	---	13	4.9	---
TOTAL	205.1	214.6	159.6	112.6	146.4	131.5	265.0	2025	3828	966	306.9	244.5
MEAN	6.62	7.15	5.15	3.63	5.23	4.24	8.83	65.3	128	31.2	9.90	8.15
MAX	11	9.0	6.4	5.0	5.9	6.2	22	151	162	100	16	14
MIN	1.9	5.0	3.5	2.8	4.4	3.2	2.4	20	95	13	4.9	5.1
AC-FT	407	426	317	223	290	261	526	4020	7590	1920	609	485

CAL YR 1981 TOTAL 5206.4 MEAN 14.3 MAX 109 MIN 1.9 AC-FT 10330
WTR YR 1982 TOTAL 8605.2 MEAN 23.6 MAX 162 MIN 1.9 AC-FT 17070

09085400 POSSUM CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°35'52", long 107°25'24", in SW¼ sec.19, T.5 S., R.89 W., Garfield County, Hydrologic Unit 14010005, on right bank 1.0 mi (1.6 km) upstream from mouth and 6.0 mi (9.7 km) northeast of New Castle.

DRAINAGE AREA.--6.41 mi² (16.60 km²).

PERIOD OF RECORD.--March 1969 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,410 ft (1,954 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years, 5.73 ft³/s (0.162 m³/s), 4,150 acre-ft/yr (5.12 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s (2.41 m³/s) Aug. 25, 1977, gage height, 2.49 ft (0.759 m), from floodmarks in well; minimum daily, 0.44 ft³/s (0.012 m³/s) Feb. 22, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s (0.96 m³/s) at 2400 May 30, gage height, 2.01 ft (0.613 m), only peak above base of 30 ft³/s (0.85 m³/s); minimum daily, 0.55 ft³/s (0.016 m³/s) Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.0	1.1	1.2	1.7	1.8	1.8	9.4	30	12	6.9	4.0
2	2.0	2.0	1.1	1.1	1.7	1.9	1.8	11	29	12	7.4	3.9
3	2.7	2.0	1.4	1.1	1.6	2.0	1.8	15	29	11	7.4	3.9
4	2.6	2.0	1.6	1.1	1.7	1.9	1.7	19	29	11	7.0	4.0
5	2.5	2.0	2.0	1.1	1.6	1.8	1.7	20	31	11	6.8	4.5
6	2.1	2.0	1.9	1.1	1.7	1.8	1.7	17	29	10	6.4	4.0
7	2.0	2.0	1.9	1.1	1.8	1.8	1.7	15	28	10	6.4	3.6
8	2.2	2.0	1.9	1.1	1.6	1.9	1.6	13	28	9.8	6.4	3.6
9	2.2	2.0	1.8	1.1	1.6	1.9	1.7	13	29	9.8	6.4	3.5
10	2.1	1.9	1.7	1.1	1.7	1.8	1.7	12	28	9.6	6.2	3.6
11	2.2	1.9	1.7	1.2	1.7	1.9	1.8	11	27	9.2	6.3	3.7
12	2.5	1.9	1.6	1.2	1.6	2.0	2.0	11	27	9.0	6.5	3.7
13	2.2	1.9	1.6	1.2	1.7	2.0	2.2	10	26	8.9	6.3	3.9
14	2.2	1.9	1.7	1.2	1.7	2.0	2.6	9.2	23	8.5	6.1	3.8
15	2.3	1.9	1.7	1.2	1.7	2.0	3.4	8.7	22	8.6	5.8	3.7
16	2.5	1.9	1.7	1.2	1.6	2.0	4.1	8.2	20	8.6	5.6	3.5
17	2.4	1.9	1.6	1.3	1.6	2.0	4.0	8.1	19	8.6	5.6	3.4
18	2.3	1.9	1.5	1.3	1.6	2.0	4.2	8.5	20	8.4	5.5	3.4
19	2.2	1.8	1.4	1.3	1.6	1.9	4.5	9.3	19	8.2	5.3	3.3
20	2.2	1.4	1.7	1.4	1.6	1.8	4.1	10	18	8.1	4.9	3.3
21	2.1	1.9	1.8	1.4	1.7	1.8	3.9	11	17	7.8	4.9	3.2
22	2.1	1.8	1.7	1.5	1.7	1.7	3.9	14	16	7.8	4.9	3.2
23	2.1	1.7	1.4	1.5	1.7	1.7	4.2	19	16	7.7	4.8	3.2
24	2.2	1.7	1.3	1.7	1.7	1.7	4.3	20	15	7.4	4.7	3.1
25	2.2	1.8	1.2	1.7	1.7	1.7	4.5	21	14	7.4	4.8	3.1
26	2.1	.75	1.4	1.7	1.7	1.8	5.0	22	14	9.2	4.7	3.3
27	2.0	.55	1.3	1.7	1.8	1.8	5.5	28	14	8.4	4.6	3.3
28	2.1	1.0	1.4	1.7	1.8	1.7	5.8	30	13	7.8	4.5	3.4
29	2.2	1.9	1.4	1.7	---	1.7	6.4	32	13	7.6	4.3	3.3
30	2.2	2.0	1.4	1.7	---	1.8	7.2	33	13	7.2	4.3	3.3
31	2.1	---	1.3	1.7	---	1.7	---	32	---	7.0	4.1	---
TOTAL	68.7	53.40	48.2	41.6	46.9	57.3	100.8	500.4	656	277.6	175.8	106.7
MEAN	2.22	1.78	1.55	1.34	1.68	1.85	3.36	16.1	21.9	8.95	5.67	3.56
MAX	2.7	2.0	2.0	1.7	1.8	2.0	7.2	33	31	12	7.4	4.5
MIN	1.9	.55	1.1	1.1	1.6	1.7	1.6	3.1	13	7.0	4.1	3.1
AC-FT	136	106	96	83	93	114	200	993	1300	551	349	212

CAL YR 1981 TOTAL 1451.40 MEAN 3.98 MAX 23 MIN .55 AC-FT 2880
WTR YR 1982 TOTAL 2133.40 MEAN 5.84 MAX 33 MIN .55 AC-FT 4230

NOTE.--NO GAGE-HEIGHT RECORD DEC. 7 TO APR. 15.

DIVIDE CREEK BASIN

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in W½ sec.29, T.8 S., R.91 W., Mesa County, Hydrologic Unit 14010005, on left bank 10 ft (3 m) downstream from private road bridge, 0.8 mi (1.3 km) upstream from Brook Creek, 8 mi (13 km) south of Raven, and 16 mi (26 km) south of Silt.

DRAINAGE AREA.--64.6 mi² (167.3 km²).

PERIOD OF RECORD.--October 1955 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,050 ft (2,149 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 31.7 ft³/s (0.898 m³/s), 22,970 acre-ft/yr (28.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 790 ft³/s (22.4 m³/s) May 12, 1962, gage height, 5.41 ft (1.649 m), from rating curve extended above 350 ft³/s (9.9 m³/s); maximum gage height, 5.45 ft (1.661 m) May 18, 1970; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 473 ft³/s (13.4 m³/s) at 2300 May 2, gage height, 4.90 ft (1.494 m), only peak above base of 160 ft³/s (4.53 m³/s); minimum daily 0.23 ft³/s (0.006 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	4.5	3.0	3.3	3.3	5.3	9.4	308	247	170	9.6	3.3
2	.54	4.5	2.8	3.3	3.3	5.6	10	386	237	150	7.4	2.4
3	.99	4.3	2.7	3.2	3.3	5.1	8.1	382	224	130	6.2	1.8
4	3.1	3.9	2.5	3.2	3.3	4.7	8.4	338	216	110	5.5	1.5
5	8.8	3.7	2.6	3.0	3.1	4.1	8.8	266	200	100	5.2	7.4
6	4.1	3.7	2.5	2.8	3.1	4.7	9.7	236	200	90	4.9	7.4
7	3.2	4.4	2.5	2.7	3.1	4.1	13	239	210	80	5.7	4.5
8	3.0	3.9	2.5	2.8	3.0	3.7	11	269	230	75	5.0	6.4
9	4.0	3.2	2.4	3.0	3.1	3.1	14	242	250	70	5.4	6.3
10	2.9	2.9	2.6	3.2	3.1	3.3	19	230	250	63	6.3	4.9
11	2.7	3.2	2.4	3.2	3.1	3.7	26	216	250	56	7.0	11
12	6.3	3.2	2.4	3.2	3.0	4.9	38	191	260	43	8.0	15
13	6.7	3.0	2.6	3.2	3.0	3.9	53	163	260	38	8.8	17
14	6.3	3.1	2.5	3.2	2.8	7.8	65	161	240	35	12	21
15	5.5	2.8	2.6	3.2	2.8	7.0	75	168	220	39	9.4	13
16	7.9	2.5	2.6	3.4	2.8	6.3	59	173	210	31	6.5	16
17	6.5	2.3	2.6	3.4	2.8	5.8	67	183	230	27	6.5	11
18	5.1	2.8	2.5	3.5	2.8	3.9	78	211	250	23	9.2	8.6
19	4.5	2.5	2.6	3.4	2.8	4.1	72	221	230	21	6.8	7.5
20	3.9	2.6	2.7	3.3	2.8	4.5	55	228	220	19	4.6	12
21	3.5	3.3	2.9	3.2	3.0	4.1	52	248	230	18	3.2	13
22	3.2	3.0	2.8	3.2	3.7	5.1	59	272	220	30	3.0	8.1
23	2.7	2.9	2.8	3.1	3.7	4.5	70	289	210	21	2.7	6.4
24	3.0	2.5	2.7	3.1	4.3	4.5	75	273	200	17	2.3	5.7
25	3.1	2.9	2.9	3.1	4.3	4.9	83	269	200	17	3.3	4.8
26	2.6	2.1	3.0	3.1	4.7	7.6	93	277	190	20	5.3	4.5
27	3.5	3.0	3.0	3.3	4.5	10	103	330	190	17	3.7	5.1
28	3.6	3.0	3.1	3.4	3.7	12	156	311	190	12	3.9	10
29	4.2	3.2	3.1	3.5	---	13	156	277	180	9.5	3.0	11
30	4.7	3.1	3.2	3.3	---	8.8	210	254	170	8.0	2.9	13
31	4.1	---	3.3	3.3	---	9.1	---	247	---	10	6.6	---
TOTAL	124.46	96.0	84.4	99.1	92.3	179.2	1756.4	7858	6614	1549.5	179.9	259.6
MEAN	4.01	3.20	2.72	3.20	3.30	5.78	58.5	253	220	50.0	5.80	8.65
MAX	8.8	4.5	3.3	3.5	4.7	13	210	386	260	170	12	21
MIN	.23	2.1	2.4	2.7	2.8	3.1	8.1	161	170	8.0	2.3	1.5
AC-FT	247	190	167	197	183	355	3480	15590	13120	3070	357	515

CAL YR 1981 TOTAL 6418.34 MEAN 17.6 MAX 248 MIN .00 AC-FT 12730
WTR YR 1982 TOTAL 18892.86 MEAN 51.8 MAX 386 MIN .23 AC-FT 37470

NOTE.--NO GAGE-HEIGHT RECORD JUNE 5 TO JULY 9.

BEAVER CREEK BASIN

09092500 BEAVER CREEK NEAR RIFLE, CO

LOCATION.--Lat 39°28'19", long 107°49'55", in NW¼NE¼ sec.1, T.7 S., R.94 W., Garfield County, Hydrologic Unit 14010005, on left bank 150 ft (46 m) upstream from unnamed tributary, 200 ft (61 m) upstream from road bridge, 4.0 mi (6.4 km) upstream from mouth, and 4.8 mi (7.7 km) southwest of Rifle.

DRAINAGE AREA.--7.90 mi² (20.46 km²).

PERIOD OF RECORD.--October 1952 to September 1982 (discontinued).

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and plank control. Altitude of gage is 6,685 ft (2,038 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 170 acres (688,000 m²) below station and about 380 acres (1.54 km²) in Mann Creek basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 4.65 ft³/s (0.132 m³/s), 3,370 acre-ft/yr (4.16 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 85 ft³/s (2.41 m³/s) May 24, 1964, gage height, 4.00 ft (1.219 m), from rating curve extended above 52 ft³/s (1.5 m³/s); minimum daily, 0.24 ft³/s (0.007 m³/s) Dec. 21, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft³/s (2.21 m³/s) at 0100 June 18, gage height, 3.72 ft (1.134 m), only peak above base of 25 ft³/s (0.71 m³/s); minimum daily, 0.58 ft³/s (0.016 m³/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	1.3	1.0	.82	.72	.62	.80	6.0	54	37	3.9	1.5
2	.81	1.4	1.0	.82	.72	.76	.80	7.6	56	32	4.1	1.4
3	1.5	1.4	1.0	.82	.72	.73	.80	11	57	27	3.8	1.3
4	2.6	1.4	1.0	.82	.72	.73	.70	17	60	24	3.5	1.3
5	2.8	1.4	1.0	.82	.70	.70	.70	18	63	21	3.2	2.3
6	2.4	1.4	.90	.83	.70	.70	.70	15	63	19	3.1	1.7
7	1.6	1.4	.90	.80	.70	.70	.70	14	63	20	3.0	1.5
8	1.2	1.5	.90	.80	.70	.70	1.3	15	59	18	2.8	1.4
9	1.1	1.4	.90	.70	.70	.68	2.0	17	56	17	2.8	1.3
10	1.1	1.5	.90	.60	.70	.72	2.8	14	54	15	2.8	1.8
11	1.0	1.6	.90	.62	.65	.77	3.4	13	54	14	2.9	2.1
12	1.1	1.6	.90	.62	.62	.80	3.8	12	53	13	3.0	1.9
13	1.3	1.5	.90	.62	.62	.80	3.4	10	53	12	2.9	2.7
14	1.1	1.5	.90	.58	.72	.84	3.8	8.8	51	10	3.0	2.3
15	1.3	1.4	1.0	.59	.82	.85	3.7	8.6	48	9.0	2.7	3.0
16	1.5	1.4	1.0	.62	.79	.76	3.0	8.3	48	8.5	2.5	3.2
17	1.8	1.3	.93	.62	.62	.73	2.5	8.2	51	7.9	2.4	3.1
18	1.7	1.2	.93	.62	.62	.74	2.7	8.6	66	8.2	2.3	2.6
19	1.4	1.2	.98	.63	.62	.76	2.8	10	60	7.6	2.2	2.6
20	1.4	1.1	.93	.62	.62	.88	2.3	12	57	7.2	2.1	3.4
21	1.4	1.2	.93	.62	.62	.80	2.5	14	52	6.4	2.2	2.7
22	1.3	1.3	.93	.68	.62	.80	2.1	20	47	6.0	2.7	2.3
23	1.3	1.2	.93	.72	.65	.90	2.5	26	46	5.7	2.7	2.1
24	1.3	1.2	.90	.65	.63	.90	2.6	29	41	5.4	2.2	1.9
25	1.3	1.1	.80	.62	.62	.90	3.1	35	39	5.8	2.5	1.8
26	1.2	.90	.83	.64	.62	.90	3.2	46	38	5.3	2.5	2.0
27	1.2	1.0	.85	.72	.62	.80	3.6	54	38	6.1	2.1	3.6
28	1.3	1.1	.80	.72	.65	.80	4.0	53	38	5.2	2.0	3.3
29	1.3	1.1	.80	.72	---	.80	4.9	55	39	5.1	1.9	3.1
30	1.3	1.1	.82	.72	---	.80	5.0	56	36	4.7	1.7	4.4
31	1.4	---	.83	.72	---	.70	---	52	---	4.2	1.6	---
TOTAL	43.73	39.10	28.29	21.50	18.81	24.07	76.20	674.1	1540	387.3	83.1	69.6
MEAN	1.41	1.30	.91	.69	.67	.78	2.54	21.7	51.3	12.5	2.68	2.32
MAX	2.8	1.6	1.0	.83	.82	.90	5.0	56	66	37	4.1	4.4
MIN	.72	.90	.80	.58	.62	.62	.70	6.0	36	4.2	1.6	1.3
AC-FT	87	78	56	43	37	48	151	1340	3050	768	165	138

CAL YR 1981 TOTAL 987.79 MEAN 2.71 MAX 26 MIN .60 AC-FT 1960
WTR YR 1982 TOTAL 3005.80 MEAN 8.24 MAX 66 MIN .58 AC-FT 5960

NOTE.--NO GAGE-HEIGHT RECORD OCT. 6 TO DEC. 16.

09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°37'13", long 108°00'44", in NE¼NE¼ sec.14, T.5 S., R.95 W., in Garfield County, Hydrologic Unit 14010006, on right bank 50 ft (15 m) downstream from mouth of Bear Gulch, 750 ft (229 m) upstream from mouth, and 3.5 mi (14 km) southwest of Rio Blanco.

DRAINAGE AREA.--12.6 mi² (32.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,420 ft (2,262 m), from topographic map.

REMARKS.--Records fair except for winter period, which are poor. No diversions or regulation above station.

AVERAGE DISCHARGE.--6 years, 4.12 ft³/s (0.117 m³/s), 2,980 acre-ft/yr (3.67 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s (6.37 m³/s) May 17, 1979, gage height, 3.30 ft (1.006 m); minimum daily, 0.01 ft³/s (0.001 m³/s) Aug. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 57 ft³/s (1.61 m³/s) at 1300 May 5, gage height, 3.35 ft (1.021 m); minimum daily, 0.26 ft³/s (0.007 m³/s) Jan. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.74	.52	.37	.60	.86	1.0	35	17	3.3	2.0	.92
2	.32	.85	.47	.37	.60	.82	.78	42	15	2.9	2.1	.86
3	.51	.82	.48	.37	.60	.86	1.0	53	11	2.5	2.0	.82
4	.72	.70	.49	.34	.60	.90	1.1	58	10	2.1	1.9	.70
5	.75	.64	.50	.36	.60	.94	1.2	58	8.7	2.1	2.0	1.0
6	.48	.63	.50	.36	.60	.90	.94	47	7.0	2.1	2.0	.95
7	.34	.68	.50	.26	.60	.90	1.1	29	5.9	2.2	1.8	.78
8	.40	.63	.50	.26	.60	.94	2.0	18	5.8	2.6	1.7	.77
9	.35	.52	.48	.36	.62	1.0	.82	18	5.5	3.0	2.2	.71
10	.33	.48	.48	.39	.64	1.1	.84	18	5.3	2.5	2.4	.73
11	.51	.45	.47	.39	.66	1.1	1.4	17	5.0	2.0	2.0	1.1
12	.65	.46	.50	.38	.66	1.2	3.9	17	4.8	1.8	2.3	.88
13	.71	.58	.49	.37	.68	1.3	7.7	16	4.4	1.6	2.1	1.4
14	.47	.58	.48	.41	.68	1.0	12	16	4.4	1.4	1.9	1.1
15	1.1	.59	.43	.41	.70	1.1	15	15	4.2	1.4	1.7	.87
16	1.4	.59	.42	.41	.70	1.1	16	15	4.1	1.2	1.6	.64
17	.90	.57	.40	.45	.70	1.0	15	15	4.3	1.2	1.6	.67
18	.71	.60	.34	.45	.70	1.1	13	18	4.2	1.0	1.6	.72
19	.54	.57	.40	.45	.72	1.0	4.3	21	3.7	.83	1.5	.81
20	.44	.65	.39	.45	.72	.90	3.0	23	3.4	.83	1.6	.75
21	.45	.48	.41	.45	.74	.90	2.4	21	3.6	.83	1.5	.68
22	.42	.54	.41	.48	.74	.94	3.8	21	3.5	.83	1.4	.61
23	.38	.59	.29	.48	.76	1.0	5.9	21	3.4	.83	1.4	.64
24	.46	.58	.44	.50	.76	.90	8.2	21	3.3	1.0	1.4	.64
25	.46	.54	.38	.50	.86	.72	14	21	3.2	1.0	1.4	.60
26	.47	.50	.33	.50	.80	.76	19	21	3.3	1.0	1.4	.72
27	.48	.50	.39	.54	.76	.74	26	21	3.3	2.0	1.3	1.1
28	.55	.52	.28	.54	1.0	1.0	32	19	3.2	1.5	1.2	1.6
29	.83	.52	.36	.54	---	1.2	28	19	2.9	1.9	1.2	1.6
30	.75	.52	.38	.54	---	1.1	26	19	3.0	2.0	1.1	2.7
31	.64	---	.37	.54	---	2.2	---	19	---	2.0	1.0	---
TOTAL	17.85	17.62	13.28	13.22	19.40	31.48	267.38	772	166.4	53.45	52.3	28.07
MEAN	.58	.59	.43	.43	.69	1.02	8.91	24.9	5.55	1.72	1.69	.94
MAX	1.4	.85	.52	.54	1.0	2.2	32	58	17	3.3	2.4	2.7
MIN	.32	.45	.28	.26	.60	.72	.78	15	2.9	.83	1.0	.60
AC-FT	35	35	26	26	38	62	530	1530	330	106	104	56

CAL YR 1981 TOTAL 376.71 MEAN 1.03 MAX 8.1 MIN .28 AC-FT 747
WTR YR 1982 TOTAL 1452.45 MEAN 3.98 MAX 58 MIN .26 AC-FT 2880

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO MAR. 23.

09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT 06...	1320	.58	520	527	8.3	12.0	8.4	210	51	20	35	1.1
NOV 17...	0910	.48	525	555	8.1	2.0	10.1	220	55	20	34	1.1
DEC 08...	1220	.49	520	520	8.2	.5	10.9	230	56	21	36	1.1
JAN 14...	1220	.40	518	562	8.0	.0	10.4	200	48	20	33	1.1
FEB 23...	1200	.76	522	464	8.1	.0	--	230	54	22	34	1.1
MAR 24...	1030	.96	500	485	8.1	1.0	--	220	53	21	35	1.1
MAY 05...	1320	54	370	360	8.2	3.0	9.1	160	42	13	21	.8
JUN 02...	1510	12	400	426	8.8	13.5	8.4	180	45	16	26	.9
JUL 12...	1450	1.8	480	501	8.4	18.0	8.4	220	54	20	32	1.0
SEP 16...	1400	.70	495	490	8.8	16.0	8.2	200	53	15	35	1.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT 06...	.8	250	37	2.5	.3	15	314	.43	.49	.13	.060	8
NOV 17...	.5	250	40	2.3	.2	12	329	.45	.43	<.09	<.020	13
DEC 08...	.6	260	38	2.0	.2	14	325	.44	.43	<.10	.070	5
JAN 14...	.5	220	37	2.0	.2	13	288	.39	.31	.17	.050	4
FEB 23...	.6	250	36	1.6	.2	15	316	.43	.65	.37	.040	5
MAR 24...	.7	240	42	2.2	.2	13	313	.43	.81	.23	.030	4
MAY 05...	.7	190	5.0	1.3	.1	16	218	.30	31.8	1.0	.100	4
JUN 02...	.8	198	18	1.6	.2	15	242	.33	7.6	<.10	.030	4
JUL 12...	.9	250	28	1.8	.2	16	304	.41	1.5	<.10	.040	4
SEP 16...	.8	226	34	2.2	.2	15	292	.40	.55	<.10	.040	4

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 06...	85	50	<1	4	13	1	12	9	.0	0	900	11
NOV 17...	80	30	<1	4	<10	1	11	12	<.1	<1	900	<3
DEC 08...	80	50	<1	3	<10	<1	15	67	<.1	<1	900	4
JAN 14...	77	60	<1	3	15	2	10	7	<.1	<1	830	7
FEB 23...	84	40	<1	9	<10	3	8	3	<.1	<1	910	<3
MAR 24...	78	50	<1	3	3	1	8	3	<.1	<1	790	<4
MAY 05...	63	20	<3	3	<9	<1	<12	19	.3	<1	580	<12
JUN 02...	65	30	<3	5	<9	<1	15	10	<.1	<1	670	<12
JUL 12...	94	50	<1	5	10	1	8	6	<.1	1	900	13
SEP 16...	88	--	<1	6	10	<1	9	5	<.1	1	890	4

PARACHUTE CREEK BASIN

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO

LOCATION.--Lat 39°37'15", long 108°01'46" in NW¼NW¼ sec.14, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.5 mi (0.8 km) upstream from mouth of Corral Gulch, 1.1 mi (1.8 km) downstream from mouth of Northwater Creek, and 9 mi (14 km) southwest of Rio Blanco.

DRAINAGE AREA.--22.1 mi² (57.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft (2,256 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, which are poor. Numerous beaver dams are located upstream. No regulation or diversion above station.

AVERAGE DISCHARGE.--6 years, 6.20 ft³/s (0.176 m³/s), 4,490 acre-ft/yr (5.54 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft³/s (5.27 m³/s) May 17, 1979, gage height, 3.39 ft (1.033 m); minimum daily, 0.09 ft³/s (0.003 m³/s) Dec. 24, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft³/s (2.63 m³/s) at 1230 May 5, gage height, 2.96 ft (0.902 m); minimum daily, 0.09 ft³/s (0.003 m³/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	.48	.29	.25	.40	.80	2.9	27	18	5.2	2.1	2.6
2	.46	.53	.27	.25	.40	.78	2.6	37	16	4.3	2.7	1.1
3	.72	.49	.29	.24	.40	.82	3.5	47	15	4.3	2.8	.63
4	.91	.43	.33	.20	.40	.88	3.2	57	14	4.1	2.8	.76
5	.91	.42	.34	.22	.40	.94	2.3	67	13	4.1	2.1	1.1
6	.72	.41	.34	.22	.40	.83	2.6	65	12	4.1	3.1	1.8
7	.72	.43	.35	.12	.40	1.1	2.6	48	11	3.8	3.1	1.2
8	.84	.39	.35	.11	.40	1.1	1.9	43	10	3.3	3.2	.91
9	.85	.36	.35	.21	.42	1.4	2.4	43	9.6	3.6	4.3	1.3
10	.74	.33	.34	.23	.44	1.5	2.7	42	9.4	3.4	3.3	1.3
11	.79	.30	.34	.23	.46	1.5	5.6	40	9.0	3.3	2.5	1.9
12	1.2	.35	.38	.22	.50	2.0	6.9	38	8.8	3.6	2.9	1.6
13	1.3	.36	.38	.22	.52	2.1	10	39	8.7	3.8	2.8	2.4
14	1.1	.36	.37	.27	.54	1.8	16	40	7.8	2.6	2.1	1.9
15	1.3	.35	.31	.27	.56	1.9	14	41	7.2	1.8	2.0	1.5
16	2.2	.31	.31	.27	.58	2.1	7.6	42	7.2	1.8	1.9	1.1
17	.62	.30	.30	.30	.60	2.1	9.8	43	7.2	1.8	1.6	.99
18	.48	.28	.22	.30	.60	2.3	11	44	7.0	2.1	1.4	.99
19	.37	.28	.28	.30	.62	2.1	4.0	45	6.5	2.2	1.3	.91
20	.29	.27	.27	.30	.64	1.9	3.0	47	6.3	1.7	1.6	.82
21	.29	.27	.29	.30	.66	1.9	5.4	45	6.1	1.8	1.6	.99
22	.27	.27	.29	.32	.68	2.3	11	42	6.1	1.6	1.7	.77
23	.26	.27	.17	.32	.70	2.6	8.3	41	5.9	1.5	1.5	.56
24	.31	.29	.09	.34	.66	2.8	12	39	5.6	1.8	2.8	1.1
25	.31	.34	.24	.34	.81	2.8	13	36	5.2	1.9	2.4	1.8
26	.32	.28	.22	.34	.74	2.7	12	32	4.8	2.2	3.8	2.9
27	.33	.28	.26	.36	.72	2.7	9.4	32	4.4	4.6	4.9	3.9
28	.43	.28	.16	.36	.98	3.2	19	26	4.4	3.1	4.4	4.5
29	.52	.28	.23	.36	---	2.8	13	24	4.6	2.2	3.9	4.2
30	.48	.28	.25	.36	---	2.4	21	23	4.6	2.1	3.6	3.9
31	.41	---	.25	.36	---	2.6	---	21	---	1.9	2.0	---
TOTAL	20.85	10.27	8.86	8.49	15.63	58.75	238.7	1256	255.4	89.6	82.2	51.43
MEAN	.67	.34	.29	.27	.56	1.90	7.96	40.5	8.51	2.89	2.65	1.71
MAX	2.2	.53	.38	.36	.98	3.2	21	67	18	5.2	4.9	4.5
MIN	.26	.27	.09	.11	.40	.78	1.9	21	4.4	1.5	1.3	.56
AC-FT	41	20	18	17	31	117	473	2490	507	178	163	102

CAL YR 1981 TOTAL 463.14 MEAN 1.27 MAX 10 MIN .09 AC-FT 919
WTR YR 1982 TOTAL 2096.18 MEAN 5.74 MAX 67 MIN .09 AC-FT 4160

NOTE.--NO GAGE-HEIGHT RECORD OCT. 17 TO NOV. 16, JAN. 14 TO FEB. 23.

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since October 1977.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 615 micromhos Dec. 18, 1976; minimum, 262 micromhos Mar. 23, 1977.
WATER TEMPERATURES: Maximum, 24.5ºC July 18, Aug. 9, 14, 1977; minimum, freezing point most days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 5,360 mg/L May 16, 1979; minimum daily, 0.0 mg/L several days during winter months in the 1981 water year.
SEDIMENT LOADS: Maximum daily, 1,980 tons (1,800 t) May 16, 1979; minimum daily, less than 0.005 ton (0.005 t) several days during 1979 water year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, not determined; minimum, not determined.
WATER TEMPERATURES: Maximum, not determined; minimum, freezing point on many days during November to April.
SEDIMENT CONCENTRATIONS: Maximum daily, not determined; minimum daily, not determined.
SEDIMENT LOADS: Maximum daily, not determined; minimum daily, not determined.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT												
06...	1100	.73	535	553	8.1	8.0	9.0	210	50	20	39	1.3
NOV												
17...	1055	.30	560	560	8.2	4.0	10.8	220	55	20	36	1.1
DEC												
08...	0945	.37	540	523	8.1	.5	10.4	220	51	22	38	1.2
JAN												
14-14	1220	.27	560	555	8.0	.5	10.8	220	55	21	37	1.2
FEB												
23...	1235	.70	534	535	8.0	2.0	--	220	53	21	35	1.1
MAR												
24...	1200	2.4	515	500	8.1	2.5	--	210	50	20	31	1.0
MAY												
05...	1100	72	380	370	8.2	5.0	9.1	160	42	14	22	.8
JUN												
02...	1245	17	435	436	8.8	12.0	8.5	180	45	16	27	1.0
JUL												
12...	1230	3.6	480	497	8.5	16.0	7.6	210	51	20	34	1.1
SEP												
16...	1230	1.1	522	518	8.6	16.0	--	220	52	21	36	1.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
OCT												
06...	1.0	260	41	2.1	.3	16	328	[redacted]	[redacted]	[redacted]	.060	6
NOV												
17...	.7	250	52	2.4	.3	15	333	.45	.27	< .09	.040	7
DEC												
08...	.7	260	46	2.4	.2	14	331	.45	.33	<.10	.060	5
JAN												
14-14	.7	260	42	2.3	.3	13	329	.45	.24	.10	.040	5
FEB												
23...	.7	260	44	2.3	.2	13	327	.44	.62	.22	.030	4
MAR												
24...	.5	220	33	1.8	.2	14	285	.39	1.9	.34	.040	4
MAY												
05...	.7	190	6.0	1.4	.2	16	222	.30	43.2	1.0	.060	4
JUN												
02...	.8	206	21	2.0	.3	15	252	.34	11.6	< .10	.030	4
JUL												
12...	.8	245	29	1.8	.2	16	301	.41	2.9	< .10	.040	5
SEP												
16...	.8	217	36	2.0	.2	16	296	.40	.88	<.10	.040	4

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT												
06...	90	60	< 1	3	< 10	1	48	25	.0	0	830	10
NOV												
17...	81	40	< 1	5	< 10	1	10	8	< .1	< 1	810	< 3
DEC												
08...	84	50	< 1	2	24	< 1	13	260	< .1	< 1	820	5
JAN												
14-14	85	40	< 1	3	13	2	13	5	.1	< 1	800	6
FEB												
23...	82	40	< 1	6	< 10	3	9	5	< .1	< 1	800	20
MAR												
24...	73	50	< 1	3	< 3	1	8	1	< .1	< 1	820	< 4
MAY												
05...	62	30	< 3	3	10	< 1	< 12	7	.2	< 1	550	< 12
JUN												
02...	65	30	< 3	4	11	< 1	16	4	< .1	< 1	620	< 12
JUL												
12...	88	50	< 1	15	< 3	< 1	10	4	< .1	< 1	820	9
SEP												
16...	96	--	< 1	4	7	3	10	5	< .1	< 1	870	38

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY				
05...	1100	72	654	127
18...	1110	33	130	12
19...	1120	43	273	32
JUN				
02...	1240	17	17	.78
JUL				
12...	1235	3.6	10	.10
29...	1200	2.2	23	.14

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	536	551	543	549	550	529	512	402	433	---		
2	533	553	543	552	551	523	511	397	432	---		
3	522	554	543	553	550	525	514	375	431	---		
4	521	554	543	555	552	526	509	377	430	---		
5	520	553	542	551	555	527	511	376	431	---		
6	535	554	542	551	554	529	510	369	431	---		
7	538	552	542	559	552	528	509	377	433	---		
8	530	553	541	558	549	527	514	383	433	---		
9	533	555	542	557	548	524	513	382	434	---		
10	539	558	541	558	547	525	512	382	---	---		
11	534	559	541	558	546	522	504	370	---	---		
12	526	559	541	558	547	501	486	---	---	490		
13	532	558	541	558	547	508	476	---	---	495		
14	537	559	542	560	545	509	470	---	---	493		
15	529	560	542	560	544	506	468	---	440	498		
16	515	560	543	559	544	510	474	---	447	498		
17	535	561	544	559	544	509	475	---	450	501		
18	541	556	547	559	546	510	473	---	457	500		
19	544	556	545	558	545	507	458	355	463	500		
20	546	558	547	557	543	509	441	372	465	501		
21	547	556	545	555	541	508	458	383	---	499		
22	548	554	545	554	537	507	483	380	---	499		
23	550	553	553	555	534	511	471	376	---	494		
24	546	551	552	554	534	511	473	381	---	502		
25	545	547	549	554	534	520	477	389	---	504		
26	548	550	550	553	533	517	471	369	---	500		
27	547	548	547	553	532	514	465	373	---	458		
28	548	546	552	556	530	507	462	386	---	---		
29	541	544	551	551	---	507	437	391	---	---		
30	535	541	550	554	---	516	411	398	---	---		
31	544	---	550	551	---	513	---	413	---	---		
MEAN	537	554	545	555	544	516	482					

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.5	6.5	5.5	1.5	1.5	.0	2.0	.0	1.0	.0	2.5	.0
2	12.0	8.0	5.0	2.0	2.5	.0	.5	.0	.5	.0	2.5	.5
3	10.5	9.0	4.5	2.0	1.0	.0	.0	.0	.5	.0	3.5	.0
4	9.5	8.5	5.0	2.0	2.5	.0	.5	.0	.0	.0	3.0	.0
5	12.0	7.5	5.5	2.0	1.5	.5	1.0	.0	.0	.0	2.5	.0
6	12.5	7.5	5.5	2.0	1.5	.0	.5	.0	.0	.0	1.0	.0
7	11.5	6.5	6.0	3.0	1.5	.0	.0	.0	.0	.0	2.5	.0
8	9.5	8.0	5.5	2.5	1.5	.0	.0	.0	.5	.0	3.0	.0
9	11.0	6.5	5.0	1.5	1.5	.0	.5	.0	.5	.0	4.0	.0
10	11.0	6.0	5.0	1.5	3.5	.5	.5	.0	.5	.0	4.0	.0
11	8.5	6.0	4.0	1.0	2.5	.5	1.0	.5	1.0	.0	4.0	.5
12	9.0	5.5	5.0	1.0	2.5	.0	1.0	.5	1.0	.0	3.5	.0
13	9.0	6.5	5.0	2.0	3.0	.5	1.0	.5	1.0	.0	3.0	.0
14	9.5	6.0	6.0	2.5	3.0	.0	.5	.0	1.5	.5	3.5	.0
15	8.5	5.0	6.0	3.0	3.5	.5	1.0	.0	2.5	.5	3.5	.5
16	6.5	4.5	4.5	2.5	2.0	.0	1.0	.0	2.5	.0	4.5	.5
17	8.0	5.0	5.5	1.5	.5	.0	1.0	.0	3.0	.0	4.0	.5
18	8.5	4.5	3.5	1.5	.5	.0	2.0	.0	2.0	.0	4.5	.0
19	8.0	3.5	3.5	.5	2.5	.5	1.5	.0	1.5	.0	2.0	.0
20	8.5	3.5	3.5	.0	2.5	1.0	1.5	.0	2.0	.0	1.5	.0
21	8.5	3.0	3.5	1.0	2.0	.5	1.0	.5	2.5	.0	2.0	.0
22	7.5	2.5	4.5	1.5	2.0	.0	.5	.0	2.0	.0	2.5	.0
23	8.0	2.5	5.0	2.0	.0	.0	.5	.0	2.5	.0	3.0	.0
24	5.0	3.5	4.5	1.5	.5	.0	1.5	.0	2.5	.0	4.0	.0
25	6.5	2.5	3.0	.0	1.0	.0	1.5	.0	3.0	.0	4.5	.0
26	7.5	2.0	1.0	.0	1.0	.0	1.5	.0	2.0	.0	3.5	.5
27	7.0	3.0	2.5	.0	1.0	.0	1.0	.0	3.0	.0	5.0	1.0
28	6.5	3.5	3.0	1.0	.5	.0	.5	.0	3.5	.0	6.5	1.0
29	5.5	3.0	3.0	1.0	1.5	.0	1.0	.0	---	---	2.0	.0
30	5.0	2.0	2.0	.5	2.0	.0	.0	.0	---	---	1.5	.0
31	6.0	1.0	---	---	2.0	.5	1.0	.0	---	---	4.0	.0
MONTH	14.5	1.0	6.0	.0	3.5	.0	2.0	.0	3.5	.0	6.5	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.0	.5	11.5	3.0	14.5	5.0	20.5	9.5				
2	5.0	.0	11.0	3.0	16.0	4.0	20.5	6.5				
3	6.0	.0	11.0	4.0	14.0	5.5	21.0	7.0				
4	7.0	.0	9.0	3.5	16.5	4.0	20.5	7.0				
5	4.0	.0	9.5	2.5	15.5	4.0	16.5	9.0				
6	5.0	.0	10.5	1.0	16.0	3.0	19.5	6.0				
7	1.5	.0	10.0	1.5	16.5	3.5	20.5	6.5				
8	2.5	.0	10.5	3.5	16.5	3.5	20.0	5.5				
9	5.5	.0	8.0	3.5	17.0	3.5	18.0	9.5				
10	7.0	.0	10.5	3.0	---	---	21.0	7.0				
11	9.5	.0	9.5	3.0	---	---	19.0	8.5				
12	7.0	2.0	---	---	---	---	20.5	8.0				
13	10.0	1.0	---	---	---	---	20.5	9.0				
14	10.5	.5	---	---	---	---	22.0	9.0				
15	9.0	.5	---	---	---	---	20.5	8.0				
16	8.5	.0	---	---	18.0	5.5	21.0	7.5				
17	9.5	.0	---	---	16.5	8.0	20.0	10.0				
18	9.5	.5	---	---	15.5	9.0	21.5	9.0				
19	5.5	.0	9.5	5.5	17.5	7.5	21.5	9.0				
20	3.5	.0	11.5	3.5	20.5	5.5	22.5	8.5				
21	9.0	.0	15.0	2.5	16.5	7.0	24.0	9.5				
22	11.5	.0	14.5	3.5	18.5	8.5	23.5	12.0				
23	9.5	2.0	13.0	4.5	18.0	7.5	23.0	11.0				
24	11.0	1.5	12.5	4.0	19.5	7.0	23.0	11.5				
25	9.0	1.5	11.5	3.0	19.5	8.0	23.5	11.0				
26	9.0	2.5	15.5	3.5	20.0	6.5	23.0	11.0				
27	8.0	3.0	14.0	4.5	22.0	7.5	18.0	12.5				
28	12.0	1.5	14.0	4.5	21.5	8.0	---	---				
29	9.5	2.5	13.5	3.5	20.0	8.0	---	---				
30	11.0	1.5	11.0	4.5	20.5	9.5	---	---				
31	---	---	16.5	4.0	---	---	---	---				
MONTH	12.0	.0					24.0	5.5				

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.40	9	.01	.48			.29		
2	.46	11	.01	.53			.27		
3	.72	15	.03	.49			.29		
4	.91	29	.07	.43			.33		
5	.91	---	---	.42			.34		
6	.72	---	---	.41			.34		
7	.72	---	---	.43			.35		
8	.84	---	---	.39			.35		
9	.85	---	---	.36			.35		
10	.74	---	---	.33			.34		
11	.79	---	---	.30			.34		
12	1.2	---	---	.35			.38		
13	1.3	---	---	.36			.38		
14	1.1	---	---	.36			.37		
15	1.3	---	---	.35			.31		
16	2.2	---	---	.31			.31		
17	.62	---	---	.30			.30		
18	.48	---	---	.28			.22		
19	.37	---	---	.28			.28		
20	.29	---	---	.27			.27		
21	.29	---	---	.27			.29		
22	.27	---	---	.27			.29		
23	.26	---	---	.27			.17		
24	.31	---	---	.29			.09		
25	.31	---	---	.34			.24		
26	.32	---	---	.28			.22		
27	.33	---	---	.28			.26		
28	.43	---	---	.28			.16		
29	.52	---	---	.28			.23		
30	.48	---	---	.28			.25		
31	.41	---	---	---			.25		
TOTAL	20.85	---	0.12	10.27			8.86		
		JANUARY			FEBRUARY			MARCH	
1	.25			.40			.80		
2	.25			.40			.78		
3	.24			.40			.82		
4	.20			.40			.88		
5	.22			.40			.94		
6	.22			.40			.83		
7	.12			.40			1.1		
8	.11			.40			1.1		
9	.21			.42			1.4		
10	.23			.44			1.5		
11	.23			.46			1.5		
12	.22			.50			2.0		
13	.22			.52			2.1		
14	.27			.54			1.8		
15	.27			.56			1.9		
16	.27			.58			2.1		
17	.30			.60			2.1		
18	.30			.60			2.3		
19	.30			.62			2.1		
20	.30			.64			1.9		
21	.30			.66			1.9		
22	.32			.68			2.3		
23	.32			.70			2.6		
24	.34			.66			2.8		
25	.34			.81			2.8		
26	.34			.74			2.7		
27	.36			.72			2.7		
28	.36			.98			3.2		
29	.36			---			2.8		
30	.36			---			2.4		
31	.36			---			2.6		
TOTAL	8.49			15.63			58.75		

PARACHUTE CREEK BASIN

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	2.9			27	---	---	18		
2	2.6			37	---	---	16		
3	3.5			47	---	---	15		
4	3.2			57	---	---	14		
5	2.3			67	565	102	13		
6	2.6			65	370	65	12		
7	2.6			48	---	---	11		
8	1.9			43	---	---	10		
9	2.4			43	---	---	9.6		
10	2.7			42	---	---	9.4		
11	5.6			40	---	---	9.0		
12	6.9			38	---	---	8.8		
13	10			39	---	---	8.7		
14	16			40	---	---	7.8		
15	14			41	---	---	7.2		
16	7.6			42	---	---	7.2		
17	9.8			43	---	---	7.2		
18	11			44	160	19	7.0		
19	4.0			45	290	35	6.5		
20	3.0			47	220	28	6.3		
21	5.4			45	140	17	6.1		
22	11			42	155	18	6.1		
23	8.3			41	100	11	5.9		
24	12			39	90	9.5	5.6		
25	13			36	65	6.3	5.2		
26	12			32	57	4.9	4.8		
27	9.4			32	48	4.1	4.4		
28	19			26	44	3.1	4.4		
29	13			24	30	1.9	4.6		
30	21			23	26	1.6	4.6		
31	---			21	---	---	---		
TOTAL	238.7			1256	---	326.4	255.4		

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	5.2	---	---	2.1			2.6		
2	4.3	---	---	2.7			1.1		
3	4.3	---	---	2.8			.63		
4	4.1	---	---	2.8			.76		
5	4.1	---	---	2.1			1.1		
6	4.1	---	---	3.1			1.8		
7	3.8	---	---	3.1			1.2		
8	3.3	---	---	3.2			.91		
9	3.6	---	---	4.3			1.3		
10	3.4	---	---	3.3			1.3		
11	3.3	---	---	2.5			1.9		
12	3.6	---	---	2.9			1.6		
13	3.8	---	---	2.8			2.4		
14	2.6	---	---	2.1			1.9		
15	1.8	---	---	2.0			1.5		
16	1.8	16	.08	1.9			1.1		
17	1.8	---	---	1.6			.99		
18	2.1	---	---	1.4			.99		
19	2.2	---	---	1.3			.91		
20	1.7	---	---	1.6			.82		
21	1.8	---	---	1.6			.99		
22	1.6	---	---	1.7			.77		
23	1.5	---	---	1.5			.56		
24	1.8	---	---	2.8			1.1		
25	1.9	---	---	2.4			1.8		
26	2.2	---	---	3.8			2.9		
27	4.6	---	---	4.9			3.9		
28	3.1	---	---	4.4			4.5		
29	2.2	23	.14	3.9			4.2		
30	2.1	---	---	3.6			3.9		
31	1.9	---	---	2.0			---		
TOTAL	89.6	---	0.22	82.2			51.43		
YEAR	2096.18		326.74						

09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°33'18", long 107°58'56", in SW¼NE¼ sec.3, T.6 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 700 ft (213 m) downstream from first Anvil Creek and 4.2 mi (6.8 km) northwest of Anvil Points.

DRAINAGE AREA.--14.5 mi^2 (37.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,860 ft (2,396 m), from topographic map.

REMARKS.--Records good except those for winter period which are fair. No diversions or regulation.

AVERAGE DISCHARGE.--6 years, 6.66 ft^3/s (0.189 m^3/s), 4,830 acre-ft/yr (5.96 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 226 ft^3/s (6.40 m^3/s) May 22, 1979, gage height, 3.60 ft (1.097 m); minimum daily, 0.07 ft^3/s (0.002 m^3/s) Aug. 9-11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 86 ft^3/s (2.44 m^3/s) at 1500 May 4, gage height, 2.82 ft (0.860 m) only peak above base of 10 ft^3/s (0.3 m^3/s); minimum daily, 0.31 ft^3/s (0.009 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	1.1	.52	.56	.58	2.3	2.7	42	20	4.6	1.8	1.0
2	.43	1.3	.52	.48	.55	2.3	2.5	52	19	4.0	2.0	.91
3	.80	1.4	.55	.43	.52	2.0	2.6	69	18	3.7	1.8	.91
4	.95	1.0	.52	.39	.43	1.6	2.3	76	17	3.6	1.7	.91
5	.91	.96	.52	.48	.34	1.3	1.9	62	16	3.4	1.6	1.3
6	.72	.90	.52	.39	.34	1.0	2.3	49	15	3.7	1.5	1.1
7	.62	1.0	.52	.34	.45	1.1	1.9	39	14	3.4	1.4	1.0
8	.72	.97	.52	.34	.48	1.0	1.7	36	13	3.3	1.6	1.1
9	.62	.84	.52	.39	.48	.97	1.9	36	13	3.6	2.0	1.1
10	.62	.72	.52	.43	.52	1.1	2.0	34	12	3.4	2.2	1.0
11	.72	.63	.52	.43	.55	1.2	3.6	32	11	3.2	2.3	1.3
12	1.1	.59	.52	.43	.55	2.8	11	32	11	3.0	2.1	1.1
13	1.1	.62	.52	.43	.52	3.4	12	30	10	2.9	2.1	2.5
14	.91	.68	.48	.43	.55	3.9	13	28	9.7	2.7	2.0	2.1
15	1.5	.83	.52	.43	.62	3.5	13	26	9.3	2.5	1.7	1.3
16	1.5	.66	.52	.48	.62	2.9	11	26	8.9	2.4	1.8	1.0
17	1.4	.64	.48	.52	.67	2.6	8.9	27	8.5	2.5	1.7	.91
18	1.2	.55	.48	.52	.52	2.4	9.9	29	8.1	2.5	1.6	.91
19	1.0	.51	.54	.62	.52	2.0	9.0	35	7.7	2.4	1.5	.81
20	.91	.51	.54	.60	.54	1.9	6.7	37	7.3	2.2	1.4	.91
21	.81	.64	.48	.60	.78	1.7	5.9	36	6.5	2.1	1.9	.81
22	.81	.67	.48	.52	1.1	1.5	7.1	35	6.0	1.9	1.7	.72
23	.72	.70	.43	.48	1.3	1.4	9.0	33	5.8	1.9	1.4	.81
24	.72	.68	.39	.52	1.4	1.5	9.4	32	5.4	2.0	1.4	.72
25	.72	.62	.43	.58	1.5	1.9	11	30	5.3	2.1	1.4	.72
26	.72	.52	.43	.58	1.8	2.6	13	29	5.2	2.0	1.4	.91
27	.72	.52	.48	.62	2.1	2.4	15	27	4.9	2.0	1.3	1.4
28	.72	.52	.43	.62	2.2	2.7	18	26	4.5	2.4	1.3	2.4
29	1.2	.58	.48	.62	---	2.9	25	24	4.2	2.1	1.2	2.3
30	1.2	.56	.54	.60	---	2.5	31	23	4.1	1.9	1.1	4.6
31	1.1	---	.52	.58	---	3.1	---	21	---	1.7	1.1	---
TOTAL	27.48	22.42	15.44	15.44	22.53	65.47	264.3	1113	300.4	85.1	51.0	38.56
MEAN	.89	.75	.50	.50	.80	2.11	8.81	35.9	10.0	2.75	1.65	1.29
MAX	1.5	1.4	.55	.62	2.2	3.9	31	76	20	4.6	2.3	4.6
MIN	.31	.51	.39	.34	.34	.97	1.7	21	4.1	1.7	1.1	.72
AC-FT	55	44	31	31	45	130	524	2210	596	169	101	76

CAL YR 1981 TOTAL 542.93 MEAN 1.49 MAX 13 MIN .30 AC-FT 1080
WTR YR 1982 TOTAL 2021.14 MEAN 5.54 MAX 76 MIN .31 AC-FT 4010

09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
NOV 04...	1400	1.2	473	556	8.2	3.5	9.4	248	61	23	21	.6
DEC 16...	1300	.52	487	406	8.5	2.0	9.8	247	59	24	21	.6
JAN 26...	1300	.59	483	532	8.2	1.5	9.6	247	59	24	22	.6
MAR 12...	1000	2.5	450	530	8.2	1.5	--	227	56	21	18	.5
APR 29...	1400	26	440	387	8.2	7.5	8.5	193	49	17	17	.6
JUN 21...	1200	6.6	460	466	8.4	8.5	8.4	220	55	20	37	1.1
JUL 20...	1500	2.2	506	478	8.6	19.0	6.6	217	52	21	20	.6
AUG 19...	1300	1.5	454	495	8.4	15.0	7.3	229	55	22	21	.6
SEP 22...	1200	.79	436	503	8.6	9.5	8.4	244	61	22	22	.6

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, DISSOLVED (TONS PER AC-FT) (70303)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	ARSENIC DISSOLVED (UG/L AS AS) (01000)
NOV 04...	.7	260	23	2.6	.1	14	303	.41	.99	<.09	.040	5
DEC 16...	.5	180	26	1.6	.2	13	255	.34	.36	.21	.030	4
JAN 26...	.6	280	18	1.6	.2	14	310	.42	.49	.33	.050	4
MAR 12...	.6	240	13	1.4	.2	13	270	.36	1.9	.35	.020	4
APR 29...	.7	200	15	2.2	.2	16	242	.32	16.8	.96	.040	4
JUN 21...	1.6	229	20	1.5	.2	17	292	.39	5.2	.27	.020	4
JUL 20...	.8	246	24	1.3	.2	17	286	.39	1.7	.17	.020	4
AUG 19...	.5	237	20	1.1	.2	18	282	.38	1.1	.10	.060	5
SEP 22...	.5	263	21	1.8	.2	16	303	.41	.65	<.10	.030	4

09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV												
04...	78	30	9	1	<10	2	10	2	.0	<1	660	5
DEC												
16...	81	40	<1	<1	<10	<1	11	2	<.1	<1	650	<3
JAN												
26...	78	40	<1	2	<10	3	8	<1	<.1	<1	670	4
MAR												
12...	70	30	<1	2	<10	2	7	2	<.1	1	600	4
APR												
29...	71	30	<3	1	45	<1	<12	8	<.1	1	520	35
JUN												
21...	70	30	4	6	4	<1	15	5	<.1	1	610	41
JUL												
20...	82	40	1	2	<3	<1	7	2	<.1	<1	630	<3
AUG												
19...	90	50	<1	3	<3	<1	14	1	<.1	1	650	4
SEP												
22...	62	40	<1	6	3	<1	9	1	<.1	<1	660	3

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO

LOCATION.--Lat 39°34'03", long 108°01'14", in SE¼NW¼ sec.35, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.3 mi (0.8 km) below East Fork Falls and 6.4 mi (10.3 km) northwest of Rulison.

DRAINAGE AREA.--20.4 mi² (52.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,880 ft (2,100 m), from topographic map. Since Apr. 25, 1980, supplementary water-stage recorder 1,000 ft (305 m) downstream at different datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor.

AVERAGE DISCHARGE.--5 years (water years 1978-82), 7.75 ft³/s (0.219 m³/s), 5,610 acre-ft/yr (6.92 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 174 ft³/s (4.93 m³/s) May 11, 1980, gage height, 2.87 ft (0.875 m); maximum gage height, 3.49 ft (1.064 m), May 17, 1978, site and datum then in use; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 101 ft³/s (2.86 m³/s) at 1900 May 4, gage height, 2.77 ft (0.844 m), only peak above base of 100 ft³/s (2.8 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.02	.00	.00	.00	1.0	61	20	4.4	1.1	.48
2	.00	.20	.02	.00	.00	.00	.90	71	19	4.0	1.5	.47
3	.00	.30	.01	.00	.00	.00	.80	83	18	4.0	1.3	.47
4	.00	.40	.01	.00	.00	.00	.70	85	16	3.9	1.2	.51
5	.00	.40	.01	.00	.00	.00	.60	89	15	4.0	1.1	1.2
6	.00	.30	.01	.00	.00	.00	.50	78	15	4.5	1.1	1.1
7	.00	.20	.00	.00	.00	.00	.42	62	14	4.2	1.0	.78
8	.00	.10	.00	.00	.00	.00	.40	55	14	4.2	1.0	.90
9	.00	.06	.00	.00	.00	.00	.50	51	14	4.3	1.2	1.0
10	.00	.02	.00	.00	.00	.00	1.0	48	13	3.4	1.6	.76
11	.00	.01	.00	.00	.00	.00	5.0	40	11	3.0	1.5	1.3
12	.00	.00	.00	.00	.00	.00	11	37	12	2.6	1.3	1.3
13	.10	.01	.00	.00	.00	.00	11	33	11	2.1	1.3	3.4
14	.00	.04	.00	.00	.00	.00	13	28	11	2.1	1.2	2.6
15	.05	.05	.00	.00	.00	.00	13	29	10	2.0	.94	1.7
16	.20	.01	.00	.00	.00	.00	11	28	9.7	2.0	1.1	1.2
17	.16	.00	.00	.00	.00	.00	9.3	27	9.3	2.1	1.2	1.0
18	.12	.02	.00	.00	.00	.00	10	30	9.6	2.0	1.1	1.0
19	.10	.00	.00	.00	.00	.00	9.7	37	8.5	1.9	.99	.99
20	.06	.00	.00	.00	.00	.00	8.4	47	7.8	1.8	.96	1.1
21	.04	.01	.00	.00	.00	.00	8.1	49	7.2	1.8	1.1	1.0
22	.01	.02	.00	.00	.00	.00	8.8	43	7.0	1.8	1.2	.82
23	.03	.03	.00	.00	.00	.00	11	42	6.8	1.6	.82	.77
24	.06	.02	.00	.00	.00	.10	13	39	6.2	1.6	.64	.69
25	.03	.01	.00	.00	.00	.20	17	38	5.7	1.5	.67	.72
26	.02	.00	.00	.00	.00	.30	20	36	5.3	1.4	.62	1.1
27	.04	.00	.00	.00	.00	.40	25	31	4.8	1.6	.48	1.9
28	.08	.00	.00	.00	.00	.50	28	29	4.4	2.0	.46	3.0
29	.04	.00	.00	.00	---	.60	33	26	4.1	1.7	.46	2.7
30	.06	.02	.00	.00	---	.70	45	25	4.0	1.5	.55	4.8
31	.08	---	.00	.00	---	.80	---	23	---	1.3	.52	---
TOTAL	1.28	2.33	.08	.00	.00	3.60	317.12	1400	313.4	80.3	31.21	40.76
MEAN	.041	.078	.003	.000	.000	.12	10.6	45.2	10.4	2.59	1.01	1.36
MAX	.20	.40	.02	.00	.00	.80	45	89	20	4.5	1.6	4.8
MIN	.00	.00	.00	.00	.00	.00	.40	23	4.0	1.3	.46	.47
AC-FT	2.5	4.6	.2	.00	.00	7.1	629	2780	622	159	62	81

CAL YR 1981 TOTAL 251.05 MEAN .69 MAX 10 MIN .00 AC-FT 498
WTR YR 1982 TOTAL 2190.08 MEAN 6.00 MAX 89 MIN .00 AC-FT 4340

NOTE.--NO GAGE-HEIGHT RECORD OCT. 1 TO APR. 12.

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1976 to current year.
WATER TEMPERATURE: October 1976 to current year.
SUSPENDED-SEDIMENT DISCHARGE: December 1976 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since December 1976.

REMARKS.--Daily maximum and minimum specific-conductance data available in District Office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 627 micromhos March 26, 1982; minimum, 97 micromhos Dec. 18, 1981.
WATER TEMPERATURES: Maximum, 20.50°C June 26, 1981; minimum, 0.0°C several days during year.
SEDIMENT CONCENTRATIONS: Maximum daily, 1,680 mg/L May 17, 1978; minimum daily, 1 mg/L July 29, 1981.
SEDIMENT LOADS: Maximum daily, 485 tons (440 t) May 17, 1978; minimum daily, 0.00 ton (0.00 t) on many days during 1982 water year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 627 micromhos Mar. 26; minimum, 316 micromhos Oct. 31.
WATER TEMPERATURES: Maximum, 19.0°C July 22, 24, July 10; minimum, 0.0°C many days during October to April.
SEDIMENT CONCENTRATIONS: Maximum daily, 222 mg/L Apr. 30; minimum daily, 1 mg/L Sept. 16.
SEDIMENT LOADS: Maximum daily, 200 tons (200 t) May 5; minimum daily, 0.00 ton (0.00 t) on many days during July and Aug.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
NOV												
05...	1300	.42	523	506	8.6	.5	6.5	250	60	24	23	.7
MAR												
24...	1300	.50	512	--	8.5	.0	--	240	56	24	23	.7
APR												
12...	1400	8.9	381	403	8.8	1.5	10.3	200	47	19	20	.6
28...	1400	24	400	384	8.4	2.5	10.2	200	50	17	19	.6
MAY												
21...	1500	50	405	385	8.2	9.0	--	200	52	17	19	.6
27...	1330	32	415	439	8.6	11.0	8.1	200	50	18	18	.6
JUN												
11...	1400	10	435	465	8.5	12.0	9.0	220	53	20	21	.6
JUL												
01...	1400	4.3	450	469	8.6	15.0	7.6	220	54	21	22	.7
13...	1500	2.7	416	437	8.8	15.0	7.6	200	48	20	22	.7
AUG												
06...	1400	1.1	436	452	8.7	14.0	8.5	200	45	22	24	.8
SEP												
02...	1200	.55	485	483	8.8	7.5	8.3	220	50	22	24	.7
24...	1100	.57	474	482	8.7	5.0	9.5	230	52	23	25	.7

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
NOV												
05...	.7	240	30	1.8	.2	14	299	.40	.34	<.09	.030	4
MAR												
24...	.7	230	31	1.7	.2	14	291	.39	.39	.37	.040	4
APR												
12...	.8	210	9.0	10	.2	12	246	.33	5.9	.31	.030	3
28...	.7	210	5.0	1.5	.2	15	240	.32	15.7	1.1	.030	5
MAY												
21...	.7	200	14	1.3	.2	17	245	.33	32.9	.75	.040	4
27...	.6	218	6.0	1.5	.2	16	245	.33	21.0	.71	.030	4
JUN												
11...	.5	234	21	1.4	.2	16	277	.37	7.8	.45	.010	4
JUL												
01...	.8	222	21	1.5	.2	16	272	.37	3.2	.18	.010	5
13...	.7	221	21	1.1	.2	15	262	.35	1.9	<.10	.030	5
AUG												
06...	.7	200	24	1.1	.2	18	256	.35	.77	<.10	.030	5
SEP												
02...	.6	230	24	1.3	.3	18	279	.38	.41	<.10	.030	5
24...	.6	226	25	1.3	.2	17	281	.38	.43	<.10	.020	5

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	STRONTIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV												
05...	79	50	<1	1	<10	3	12	2	<.1	<1	710	5
MAR												
24...	77	50	<1	1	<3	<1	6	<1	<.1	1	690	<4
APR												
12...	60	50	<3	3	<10	<1	17	3	<.1	1	550	<12
28...	67	30	<3	2	12	<1	<12	3	<.1	1	550	<12
MAY												
21...	65	30	<3	3	20	8	13	<3	<.1	1	540	<12
27...	65	30	<3	2	<9	1	<12	<3	<.1	1	540	<12
JUN												
11...	78	20	2	4	<3	<1	12	4	<.1	1	610	<3
JUL												
01...	82	40	1	4	7	2	6	2	<.1	1	660	12
13...	72	50	3	4	<3	1	10	3	<.1	<1	600	10
AUG												
06...	81	60	<1	5	<3	<1	12	2	<.1	<1	660	8
SEP												
02...	80	60	<1	2	<3	<1	12	<1	<.1	<1	690	4
24...	83	50	<1	2	<3	3	10	<1	<.1	<1	700	<3

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
12...	1300	8.9	153	3.7	--
28...	1400	24	70	4.6	--
30...	1300	44	279	33	--
MAY					
21...	1300	50	111	15	45
27...	1100	32	60	5.1	--
JUN					
11...	1430	10	16	.45	--
JUL					
01...	1200	4.3	10	.12	--
JUL					
13...	1500	2.7	12	.09	--
AUG					
06...	1300	1.1	0	.00	--
18...	1300	1.1	3	.00	--
30...	1200	.60	3	.00	--
31...	1300	.60	5	.00	--
SEP					
02...	1200	.55	5	.00	--
24...	1000	.57	2	.00	--

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	370	488			---	576	386	438	442	441	437
2	---	404	504			---	574	387	440	450	436	440
3	---	420	505			---	563	387	441	447	435	440
4	---	447	499			---	546	387	442	442	439	434
5	456	471	485			---	546	395	443	448	441	436
6	---	474	490			---	534	389	447	436	439	442
7	---	453	450			---	534	374	442	432	440	444
8	---	470	---			---	534	368	443	428	438	439
9	---	461	---			---	518	367	442	423	439	443
10	---	472	---			---	507	366	442	420	440	442
11	---	476	---			---	468	375	442	435	440	446
12	445	478	---			---	426	378	442	432	439	450
13	447	450	---			---	429	380	441	430	440	435
14	---	438	---			---	432	390	439	432	435	451
15	426	462	---			---	420	398	440	435	440	456
16	450	458	---			---	419	404	438	436	442	456
17	459	469	---			---	421	403	436	438	439	453
18	462	472	---			---	409	406	436	432	437	452
19	462	501	---			---	423	405	442	432	439	453
20	461	---	---			---	441	391	441	439	437	454
21	461	462	---			---	455	399	442	430	436	457
22	464	450	---			---	447	412	442	437	438	458
23	460	448	---			---	433	413	444	437	438	458
24	458	457	---			500	426	415	443	434	437	461
25	472	455	---			492	420	419	444	440	439	465
26	471	---	---			522	414	422	444	435	439	458
27	455	---	---			616	406	425	442	437	436	458
28	448	---	---			602	405	427	443	441	437	457
29	446	496	---			598	399	430	441	438	438	467
30	430	490	---			603	395	430	440	439	436	459
31	386	---	---			587	---	433	---	440	437	---
MEAN	451	458	489			565	464	399	441	436	438	450

WTR YR 1982 MEAN 447 MAX 616 MIN 366

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	.0	.0	.0	.0					---	---
2	---	---	.0	.0	.0	.0					---	---
3	---	---	.0	.0	.0	.0					---	---
4	---	---	.0	.0	.0	.0					---	---
5	7.5	5.5	.0	.0	.0	.0					---	---
6	---	---	.0	.0	.0	.0					---	---
7	---	---	1.5	.0	.0	.0					---	---
8	---	---	1.0	.0	.0	.0					---	---
9	---	---	.5	.0	---	---					---	---
10	---	---	.0	.0	---	---					---	---
11	---	---	.0	.0	---	---					---	---
12	4.5	4.5	.0	.0	---	---					---	---
13	6.5	4.0	.0	.0	---	---					---	---
14	---	---	.5	.0	---	---					---	---
15	5.0	3.0	2.5	.5	---	---					---	---
16	3.0	2.0	2.0	.5	---	---					---	---
17	4.5	1.5	1.5	.0	---	---					---	---
18	3.0	.5	1.0	.0	---	---					---	---
19	2.0	.0	.0	.0	---	---					---	---
20	1.5	.0	---	---	---	---					---	---
21	1.5	.0	.0	.0	---	---					---	---
22	.5	.0	.0	.0	---	---					---	---
23	.0	.0	.0	.0	---	---					---	---
24	.0	.0	.0	.0	---	---					.0	.0
25	.0	.0	.0	.0	---	---					.0	.0
26	.0	.0	---	---	---	---					.5	.0
27	.0	.0	---	---	---	---					1.5	.5
28	3.0	.0	---	---	---	---					2.5	.5
29	3.5	.0	.0	.0	---	---					1.0	.0
30	.0	.0	.0	.0	---	---					.0	.0
31	.0	.0	---	---	---	---					.0	.0
MONTH	7.5	.0	2.5	.0	.0	.0					2.5	.0

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.5	.0	9.5	3.5	11.5	5.0	14.5	9.5	17.0	9.5	13.5	8.5
2	1.0	.0	11.0	3.0	12.0	3.5	15.0	6.0	18.0	13.0	13.0	6.5
3	1.5	.0	9.5	4.5	10.5	5.0	15.5	6.5	17.0	12.0	13.0	7.5
4	2.5	.0	9.0	4.0	12.0	3.5	14.0	7.0	16.5	10.0	14.0	8.5
5	.0	.0	7.0	1.5	11.0	3.5	12.5	8.5	16.0	9.0	14.0	10.5
6	2.0	.0	8.0	.5	11.0	2.0	13.5	5.5	16.5	10.5	13.5	8.5
7	.0	.0	7.5	1.5	12.0	2.5	15.0	6.0	16.0	11.5	11.5	8.0
8	.0	.0	8.5	3.5	12.5	3.0	16.0	9.0	17.0	11.5	12.5	8.5
9	.0	.0	7.0	4.0	12.5	2.5	15.0	9.5	16.5	12.0	13.5	8.5
10	.0	.0	8.0	3.0	12.5	3.0	16.0	7.0	16.5	11.0	13.0	10.0
11	2.0	.0	7.0	3.0	14.0	5.5	15.0	8.5	15.5	11.5	11.5	8.5
12	2.5	1.0	4.0	2.0	13.0	6.0	16.5	8.5	16.5	12.0	9.0	7.0
13	4.5	.5	5.5	1.5	12.0	6.0	17.0	9.5	15.5	12.0	7.5	6.0
14	5.5	.0	9.5	3.0	12.5	5.5	17.0	9.5	17.0	12.5	6.5	4.5
15	5.5	.5	9.5	2.0	12.0	5.5	16.0	7.5	17.0	11.5	10.5	6.0
16	3.5	.0	9.5	2.5	13.5	6.0	16.0	7.0	15.5	11.5	11.0	6.5
17	5.0	.0	10.0	3.5	14.0	8.0	16.5	10.5	16.5	11.0	11.0	8.5
18	6.0	.5	11.5	3.5	12.5	9.0	16.5	9.5	17.0	11.5	11.0	7.0
19	1.5	.0	9.0	4.0	13.0	7.5	16.5	8.5	16.5	11.0	11.0	7.0
20	.0	.0	10.0	3.5	15.0	5.5	17.5	9.0	16.5	12.0	11.0	7.5
21	3.0	.0	12.5	2.5	14.5	7.0	18.0	10.5	17.0	13.0	11.0	7.5
22	6.0	.0	12.0	4.0	15.0	9.0	19.0	12.0	17.5	12.5	12.0	7.0
23	5.0	2.0	11.5	5.0	14.0	8.0	18.5	11.0	16.5	11.5	11.5	8.5
24	7.5	.5	10.5	3.5	15.0	7.5	19.0	12.0	15.5	12.5	10.5	6.0
25	7.0	1.0	10.0	3.0	14.5	8.5	18.0	11.5	14.0	11.0	11.0	7.5
26	6.5	2.0	14.0	3.5	14.5	6.5	18.0	12.0	15.5	12.0	13.0	10.5
27	6.5	2.0	12.0	4.5	17.5	7.5	17.0	13.5	15.0	10.5	11.0	6.5
28	8.0	1.0	12.0	4.5	16.5	8.5	16.5	13.0	14.5	10.0	6.0	4.0
29	6.5	2.5	12.0	3.0	15.5	8.0	17.5	12.0	14.5	10.0	7.0	3.5
30	9.0	1.5	9.5	4.5	16.5	9.5	17.5	10.5	15.0	10.5	8.5	6.0
31	---	---	13.0	3.0	---	---	17.5	9.5	14.5	9.5	---	---
MONTH	9.0	.0	14.0	.5	17.5	2.0	19.0	5.5	18.0	9.0	14.0	3.5
YEAR	19.0	.0										

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	.00			.10			.02		
2	.00			.20			.02		
3	.00			.30			.01		
4	.00			.40			.01		
5	.00			.40			.01		
6	.00			.30			.01		
7	.00			.20			.00		
8	.00			.10			.00		
9	.00			.06			.00		
10	.00			.02			.00		
11	.00			.01			.00		
12	.00			.00			.00		
13	.10			.01			.00		
14	.00			.04			.00		
15	.05			.05			.00		
16	.20			.01			.00		
17	.16			.00			.00		
18	.12			.02			.00		
19	.10			.00			.00		
20	.06			.00			.00		
21	.04			.01			.00		
22	.01			.02			.00		
23	.03			.03			.00		
24	.06			.02			.00		
25	.03			.01			.00		
26	.02			.00			.00		
27	.04			.00			.00		
28	.08			.00			.00		
29	.04			.00			.00		
30	.06			.02			.00		
31	.08			---			.00		
TOTAL	1.28			2.33			0.08		

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	.00			.00			.00		
2	.00			.00			.00		
3	.00			.00			.00		
4	.00			.00			.00		
5	.00			.00			.00		
6	.00			.00			.00		
7	.00			.00			.00		
8	.00			.00			.00		
9	.00			.00			.00		
10	.00			.00			.00		
11	.00			.00			.00		
12	.00			.00			.00		
13	.00			.00			.00		
14	.00			.00			.00		
15	.00			.00			.00		
16	.00			.00			.00		
17	.00			.00			.00		
18	.00			.00			.00		
19	.00			.00			.00		
20	.00			.00			.00		
21	.00			.00			.00		
22	.00			.00			.00		
23	.00			.00			.00		
24	.00			.00			.10		
25	.00			.00			.20		
26	.00			.00			.30		
27	.00			.00			.40		
28	.00			.00			.50		
29	.00			---			.60		
30	.00			---			.70		
31	.00			---			.80		
TOTAL	0.00			0.00			3.60		
		APRIL			MAY			JUNE	
1	1.0	---	---	61	---	50	20	28	1.5
2	.90	---	---	71	---	85	19	38	1.9
3	.80	---	---	83	---	150	18	35	1.7
4	.70	---	---	85	---	160	16	31	1.3
5	.60	---	---	89	---	200	15	25	1.0
6	.50	---	---	78	---	120	15	25	1.0
7	.42	---	---	62	---	63	14	17	.64
8	.40	---	---	55	---	37	14	14	.53
9	.50	---	---	51	---	29	14	19	.72
10	1.0	---	---	48	---	25	13	24	.84
11	5.0	---	---	40	---	15	11	14	.42
12	11	329	9.8	37	---	12	12	25	.81
13	11	524	16	33	---	9.5	11	18	.53
14	13	513	18	28	---	6.5	11	25	.74
15	13	213	7.5	29	---	7.0	10	16	.43
16	11	89	2.6	28	---	6.5	9.7	20	.52
17	9.3	69	1.7	27	---	6.0	9.3	16	.40
18	10	54	1.5	30	---	7.8	9.6	19	.49
19	9.7	19	.50	37	---	12	8.5	21	.48
20	8.4	---	.62	47	---	23	7.8	23	.48
21	8.1	---	.59	49	114	15	7.2	20	.39
22	8.8	---	.68	43	146	17	7.0	20	.38
23	11	---	1.0	42	91	10	6.8	20	.37
24	13	---	1.4	39	66	6.9	6.2	22	.37
25	17	---	2.3	38	52	5.3	5.7	17	.26
26	20	---	3.1	36	42	4.1	5.3	19	.27
27	25	---	3.6	31	46	3.8	4.8	22	.28
28	28	57	4.3	29	47	3.7	4.4	20	.24
29	33	128	11	26	49	3.4	4.1	26	.29
30	45	222	27	25	26	1.8	4.0	11	.12
31	---	---	---	23	27	1.7	---	---	---
TOTAL	317.12	---	113.19	1400	---	1097.0	313.4	---	19.40

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	4.4	9	.11	1.1	---	.00	.48	3	.00
2	4.0	17	.18	1.5	---	.00	.47	3	.00
3	4.0	19	.20	1.3	---	.00	.47	2	.00
4	3.9	30	.32	1.2	---	.00	.51	3	.00
5	4.0	49	.53	1.1	---	.00	1.2	2	.01
6	4.5	25	.30	1.1	---	.00	1.1	4	.01
7	4.2	44	.50	1.0	---	.00	.78	4	.01
8	4.2	30	.34	1.0	---	.00	.90	5	.01
9	4.3	19	.22	1.2	---	.00	1.0	6	.02
10	3.4	12	.11	1.6	---	.00	.76	5	.01
11	3.0	11	.09	1.5	---	.00	1.3	6	.02
12	2.6	17	.12	1.3	---	.00	1.3	5	.02
13	2.1	18	.10	1.3	---	.00	3.4	16	.15
14	2.1	9	.05	1.2	---	.00	2.6	10	.07
15	2.0	7	.04	.94	---	.00	1.7	5	.02
16	2.0	7	.04	1.1	---	.00	1.2	1	.00
17	2.1	7	.04	1.2	---	1.0	1.0	3	.01
18	2.0	5	.03	1.1	5	.02	1.0	4	.01
19	1.9	4	.02	.99	---	.02	.99	4	.01
20	1.8	4	.02	.96	---	.01	1.1	5	.01
21	1.8	5	.02	1.1	---	.02	1.0	4	.01
22	1.8	5	.02	1.2	---	.03	.82	4	.01
23	1.6	5	.02	.82	---	.02	.77	4	.01
24	1.6	8	.03	.64	---	.02	.69	6	.01
25	1.5	8	.03	.67	---	.01	.72	16	.03
26	1.4	---	.00	.62	---	.01	1.1	33	.10
27	1.6	---	.00	.48	---	.01	1.9	41	.21
28	2.0	---	.00	.46	---	.01	3.0	32	.26
29	1.7	---	.00	.46	---	.01	2.7	20	.15
30	1.5	---	.00	.55	6	.01	4.8	84	1.1
31	1.3	---	.00	.52	6	.01	---	---	---
TOTAL	80.3	---	3.48	31.21	---	1.21	40.76	---	2.28
YEAR	2190.08		1236.56						

09092980 BEN GOOD CREEK NEAR RULISON, CO

LOCATION.--Lat 39°35'25", long 108°02'26", in NE¼NW¼ sec.27, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.2 mi (0.3 km) upstream from East Fork Parachute Creek and 8.3 mi (13.4 km) northwest of Rulison.

DRAINAGE AREA.--4.04 mi^2 (10.46 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft (1,990 m), from topographic map.

REMARKS.--Records good. No regulation or diversions above station.

AVERAGE DISCHARGE.--5 years, 0.55 ft^3/s (0.016 m^3/s), 398 acre-ft/yr (0.49 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13 ft^3/s (0.37 m^3/s) May 7, 1980, gage height, 2.78 ft (0.847 m); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2.5 ft^3/s (0.071 m^3/s) at 2400 May 4, gage height, 2.20 ft (0.671 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.14	.49	.29	.13	.06
2	.00	.00	.00	.00	.00	.00	.00	.39	.57	.23	.14	.06
3	.00	.00	.00	.00	.00	.00	.00	.67	.76	.22	.13	.06
4	.00	.00	.00	.00	.00	.00	.00	1.9	.79	.21	.13	.06
5	.00	.00	.00	.00	.00	.00	.00	2.1	.84	.21	.13	.07
6	.00	.00	.00	.00	.00	.00	.00	1.3	1.0	.21	.13	.07
7	.00	.00	.00	.00	.00	.00	.00	1.2	1.1	.21	.13	.07
8	.00	.00	.00	.00	.00	.00	.00	1.0	1.1	.20	.14	.07
9	.00	.00	.00	.00	.00	.00	.00	.94	.97	.20	.13	.07
10	.00	.00	.00	.00	.00	.00	.00	1.1	.58	.19	.12	.06
11	.00	.00	.00	.00	.00	.00	.00	.97	.25	.18	.12	.08
12	.00	.00	.00	.00	.00	.00	.00	1.1	.28	.17	.13	.08
13	.00	.00	.00	.00	.00	.00	.00	.92	.25	.16	.12	.11
14	.00	.00	.00	.00	.00	.00	.00	.69	.25	.15	.12	.09
15	.00	.00	.00	.00	.00	.00	.00	.56	.28	.14	.11	.09
16	.00	.00	.00	.00	.00	.00	.00	.55	.26	.13	.11	.08
17	.00	.00	.00	.00	.00	.00	.00	.64	.25	.13	.10	.07
18	.00	.00	.00	.00	.00	.00	.00	1.1	.26	.13	.10	.07
19	.00	.00	.00	.00	.00	.00	.00	2.0	.24	.14	.09	.08
20	.00	.00	.00	.00	.00	.00	.00	2.0	.24	.13	.09	.08
21	.00	.00	.00	.00	.00	.00	.00	1.8	.27	.13	.09	.08
22	.00	.00	.00	.00	.00	.00	.00	1.6	.29	.14	.08	.07
23	.00	.00	.00	.00	.00	.00	.00	1.5	.29	.12	.08	.06
24	.00	.00	.00	.00	.00	.00	.00	1.3	.28	.11	.08	.06
25	.00	.00	.00	.00	.00	.00	.00	1.2	.27	.06	.08	.06
26	.00	.00	.00	.00	.00	.00	.00	1.0	.27	.00	.08	.07
27	.00	.00	.00	.00	.00	.00	.00	.98	.28	.10	.08	.09
28	.00	.00	.00	.00	.00	.00	.00	.84	.24	.18	.08	.10
29	.00	.00	.00	.00	---	.00	.00	.76	.24	.15	.07	.10
30	.00	.00	.00	.00	---	.00	.00	.68	.25	.14	.06	.13
31	.00	---	.00	.00	---	.00	---	.61	---	.14	.06	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	33.54	13.44	4.90	3.24	2.30
MEAN	.000	.000	.000	.000	.000	.000	.000	1.08	.45	.16	.10	.077
MAX	.00	.00	.00	.00	.00	.00	.00	2.1	1.1	.29	.14	.13
MIN	.00	.00	.00	.00	.00	.00	.00	.14	.24	.00	.06	.06
AC-FT	.00	.00	.00	.00	.00	.00	.00	67	27	9.7	6.4	4.6

CAL YR 1981 TOTAL 10.76 MEAN .029 MAX .25 MIN .00 AC-FT 21
WTR YR 1982 TOTAL 57.42 MEAN .16 MAX 2.1 MIN .00 AC-FT 114

09092980 BEN GOOD CREEK NEAR RULISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
APR												
28...	1200	.08	600	590	8.6	4.5	9.2	199	51	17	48	1.5
MAY												
21...	1600	1.6	415	450	8.6	13.0	--	170	43	15	33	1.1
28...	1200	.93	440	478	8.7	8.0	9.2	179	43	17	35	1.2
JUN												
11...	1100	.40	540	577	8.5	8.0	9.2	230	52	24	43	1.3
30...	1400	.23	540	561	8.4	14.0	8.0	221	45	26	47	1.4
JUL												
13...	1200	.16	532	562	8.7	14.1	7.6	218	44	26	47	1.4
AUG												
05...	1100	.14	525	581	8.7	13.0	9.3	218	44	26	47	1.4
SEP												
01...	1200	.06	588	583	8.7	11.0	8.2	218	42	27	50	1.5
23...	1300	.06	582	577	9.3	2.6	7.7	211	41	26	50	1.5

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)
APR												
28...	1.0	240	60	3.0	.6	18	359	.47	.08	.40	.010	4
MAY												
21...	1.0	210	10	3.6	.3	20	256	.34	1.1	.66	.040	4
28...	1.0	220	19	2.6	.3	18	272	.36	.68	.48	.030	3
JUN												
11...	.8	265	50	2.8	.5	18	354	.48	.38	.40	<.010	2
30...	.9	242	50	2.7	.5	19	339	.46	.21	.25	.010	3
JUL												
13...	.7	251	53	2.8	.5	19	346	.47	.15	.18	.010	2
AUG												
05...	.8	238	55	2.8	.5	19	340	.46	.13	.16	.030	2
SEP												
01...	.9	230	58	2.9	.5	20	342	.46	.06	.12	.030	3
23...	.8	226	59	3.0	.5	20	338	.46	.05	.13	.010	3

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
APR												
28...	86	100	<3	1	<9	<1	23	<3	<.1	1	1400	18
MAY												
21...	76	40	<3	<1	25	8	17	<3	<.1	1	970	15
28...	75	50	<3	1	<9	4	18	5	<.1	1	1000	62
JUN												
11...	89	60	<1	3	12	2	22	2	<.1	1	1300	5
30...	86	80	2	2	6	2	17	4	<.1	1	1200	59
JUL												
13...	83	90	3	<1	<3	1	19	2	<.1	<1	1200	5
AUG												
05...	89	90	<1	3	<3	<1	28	1	<.1	<1	1300	5
SEP												
01...	87	100	<1	1	<3	<1	18	<1	<.1	1	1300	<3
23...	86	100	<1	<1	4	<1	21	<1	.9	<1	1300	14

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO

LOCATION.--Lat 39°34'02", long 108°06'37", in SE¼SE¼ sec.36, T.5 S., R.96 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.3 mi (0.5 km) upstream from Gardner Gulch, 0.6 mi (1.0 km) downstream from confluence of West and East Forks, and 8.5 mi (13.7 km) north of Parachute.

DRAINAGE AREA.--141 mi² (365 km²).

PERIOD OF RECORD.--Streamflow records, October 1948 to September 1954, October 1964 to September 1970, April 1975 to current year. Prior to October 1979, published as near Grand Valley. Water-quality data available, November 1974 to October 1981.

GAGE.--Water-stage recorder. Altitude of gage is 5,730 ft (1,747 m), from topographic map. Prior to Apr. 1, 1975, at sites 0.4 mi (0.6 km) downstream at different datums.

REMARKS.--Records fair except those for winter period, which are poor. Diversions for irrigation of about 75 acres (304,000 m²) above station. One diversion from East Fork bypasses station for irrigation of about 100 acres (405,000 m²) below station.

AVERAGE DISCHARGE.--19 years (water years 1949-54, 1965-70, 1976-82), 20.5 ft³/s (0.581 m³/s), 14,850 acre-ft/yr (18.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft³/s (65.4 m³/s) Aug. 19, 1977, gage height, 6.11 ft (1.862 m), from highwater mark, from rating curve extended above 150 ft³/s (4.2 m³/s), on basis of slope-area measurements at gage heights 4.25 ft (1.295 m) and 6.11 ft (1.862 m); no flow Dec. 2, 1948, many days 1964-67 and 1976-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 132 ft³/s (3.74 m³/s) at 0900 May 4, gage height, 3.38 ft (1.030 m), no peak above base of 150 ft³/s (4.2 m³/s), minimum daily discharge, 1.1 ft³/s (0.031 m³/s) Feb. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	4.7	3.2	2.8	2.4	3.9	8.2	85	64	21	10	5.7
2	5.4	5.1	3.2	2.8	2.4	4.7	7.7	89	61	20	10	5.5
3	6.5	5.1	3.4	2.8	2.4	4.4	7.7	103	57	19	9.4	5.6
4	7.0	4.7	3.2	2.8	2.4	4.1	9.1	128	53	19	9.7	6.0
5	7.0	4.4	3.3	3.0	2.4	4.0	9.0	125	49	18	9.4	6.8
6	5.8	4.5	3.3	3.0	2.2	3.8	10	113	46	19	9.4	6.6
7	4.9	5.0	3.1	3.0	2.0	4.2	10	105	40	17	9.0	6.7
8	6.2	4.7	3.3	3.0	2.0	4.2	9.0	101	39	17	9.0	6.3
9	6.2	4.5	3.0	3.0	1.1	4.3	10	99	36	17	9.0	6.4
10	5.1	3.9	3.0	2.8	1.1	4.6	11	99	35	16	8.5	7.1
11	6.2	3.8	3.0	2.5	1.3	4.9	13	99	33	15	8.5	10
12	7.4	3.9	3.0	2.7	1.5	7.3	22	102	32	15	8.5	9.1
13	6.7	3.7	3.0	3.0	1.6	6.4	30	102	31	14	9.0	11
14	5.7	3.6	3.0	3.0	1.7	6.4	40	97	29	13	9.5	10
15	8.1	3.6	3.0	3.0	1.8	6.8	43	97	30	13	9.5	9.3
16	9.8	3.6	3.0	2.8	1.8	6.4	39	97	32	12	9.5	8.9
17	6.0	3.6	2.8	2.9	2.1	6.4	39	100	32	12	9.8	8.4
18	5.3	3.6	2.6	2.9	2.2	6.4	37	108	31	12	9.7	8.5
19	5.0	3.4	3.0	3.0	2.4	6.4	32	117	30	11	9.2	8.8
20	4.7	3.4	3.2	2.8	2.5	5.8	34	123	29	11	9.1	8.6
21	4.4	3.4	3.2	2.5	2.7	5.7	31	118	27	11	9.3	8.0
22	4.2	3.6	3.0	2.5	2.6	5.5	32	116	27	9.5	9.0	7.7
23	4.0	3.6	2.4	2.6	2.8	5.7	29	111	26	8.6	8.9	7.6
24	4.8	3.4	2.2	2.6	3.1	5.9	40	106	26	8.7	8.7	7.6
25	5.1	3.4	2.4	2.5	2.9	6.0	38	100	24	8.5	8.4	7.7
26	4.0	3.4	2.8	2.7	3.0	6.8	44	93	24	8.4	8.2	8.1
27	4.4	3.2	2.8	2.8	3.5	6.5	51	87	23	11	7.6	9.6
28	4.4	3.4	2.6	2.8	3.8	6.8	62	82	21	13	7.8	11
29	6.5	3.5	2.8	2.6	---	7.6	72	78	21	12	7.6	8.9
30	6.7	3.4	3.0	2.6	---	6.3	80	74	20	10	6.5	7.4
31	4.6	---	3.0	2.5	---	7.1	---	70	---	10	6.0	---
TOTAL	176.7	117.1	91.8	86.3	63.7	175.3	899.7	3124	1028	421.7	273.7	238.9
MEAN	5.70	3.90	2.96	2.78	2.28	5.65	30.0	101	34.3	13.6	8.83	7.96
MAX	9.8	5.1	3.4	3.0	3.8	7.6	80	128	64	21	10	11
MIN	4.0	3.2	2.2	2.5	1.1	3.8	7.7	70	20	8.4	6.0	5.5
AC-FT	350	232	182	171	126	348	1780	6200	2040	836	543	474

CAL YR 1981 TOTAL 2355.8 MEAN 6.45 MAX 26 MIN 2.1 AC-FT 4670
WTR YR 1982 TOTAL 6696.9 MEAN 18.3 MAX 128 MIN 1.1 AC-FT 13280

09093500 PARACHUTE CREEK AT PARACHUTE, CO

LOCATION.--Lat 39°27'11", long 108°03'33", in SE¼NW¼ sec.12, T.7 S., R.96 W., Garfield County, Hydrologic Unit 14010006, on left bank 1,300 ft (396 m) upstream from cemetery bridge in Grand Valley, 2,000 ft (610 m) downstream from headgate of Diamond ditch, and 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--198 mi² (513 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1921 to September 1927, October 1948 to September 1954, October 1974 to September 1982 (discontinued). Prior to October 1980, published as at Grand Valley.

GAGE.--Water-stage recorder. Altitude of gage is 5,100 ft (1,554 m), from topographic map. Nonrecording gage Apr. 7, 1921, to Sept. 30, 1927; water-stage recorder Oct. 1, 1948, to Sept. 30, 1954, at site 75 ft (23 m) upstream at different datum; and October 1974 to December 23, 1975, at site 0.5 mi (0.8 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of 1,400 acres (5.67 km²) and 400 acres (1.62 km²) along Colorado River.

AVERAGE DISCHARGE.--20 years (water years 1922-27, 1949-54, 1975-82), 30.9 ft³/s (0.875 m³/s), 22,390 acre-ft/yr (27.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s (73.6 m³/s) July 31, 1976, gage height, 9.47 ft (2.886 m), from high-water marks, result of slope-area measurement; no flow for short periods 1926-27, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 454 ft³/s (12.9 m³/s) at 2300 Oct. 15, gage height, 5.49 ft (1.673 m), only peak above base of 200 ft³/s (5.7 m³/s); minimum daily, 6.3 ft³/s (0.178 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	12	12	14	8.8	11	20	133	76	25	16	8.0
2	7.8	13	12	13	8.1	14	20	151	69	24	16	8.6
3	10	12	12	13	7.9	13	20	171	67	22	16	8.6
4	12	12	11	12	8.0	12	21	207	66	22	16	8.7
5	13	12	12	13	8.0	11	22	230	64	22	15	10
6	11	12	12	13	7.5	11	22	190	60	22	14	11
7	12	12	12	13	7.0	11	23	170	56	21	13	9.9
8	12	12	12	14	8.5	11	23	150	51	18	14	9.4
9	12	12	12	14	10	11	24	150	49	24	14	9.4
10	12	12	12	14	9.0	11	24	140	45	24	13	10
11	14	12	12	14	9.0	12	24	140	43	22	13	13
12	18	12	12	13	9.0	13	28	140	41	21	13	14
13	20	12	12	14	9.0	14	34	140	41	20	14	19
14	18	12	12	14	8.5	14	41	120	39	17	14	19
15	25	12	12	14	9.3	14	46	110	38	17	14	16
16	19	12	12	13	9.2	14	48	110	38	15	14	16
17	14	12	12	13	11	15	47	110	36	15	14	15
18	11	12	12	13	12	15	47	118	37	16	14	16
19	11	12	12	13	13	15	47	125	37	16	14	16
20	11	12	12	13	15	15	45	135	38	15	14	17
21	11	12	12	13	16	15	43	138	35	15	14	16
22	12	12	11	12	16	15	43	136	31	16	14	15
23	11	12	11	12	15	15	45	134	31	15	14	15
24	12	12	11	12	14	15	47	132	30	15	14	15
25	11	12	11	11	12	16	52	129	29	15	14	15
26	12	12	11	11	12	16	57	119	28	16	14	16
27	12	11	12	10	11	17	63	104	28	16	13	20
28	12	12	12	9.7	12	17	68	101	27	18	12	23
29	13	12	13	9.2	---	18	84	91	25	17	12	22
30	16	12	14	9.4	---	19	121	87	23	17	12	25
31	14	---	14	9.1	---	19	---	81	---	17	11	---
TOTAL	405.1	360	371	385.4	295.8	439	1249	4192	1278	575	429	436.6
MEAN	13.1	12.0	12.0	12.4	10.6	14.2	41.6	135	42.6	18.5	13.8	14.6
MAX	25	13	14	14	16	19	121	230	76	25	16	25
MIN	6.3	11	11	9.1	7.0	11	20	81	23	15	11	8.0
AC-FT	804	714	736	764	587	871	2480	8310	2530	1140	851	866

CAL YR 1981 TOTAL 4278.1 MEAN 11.7 MAX 28 MIN 3.1 AC-FT 8490
WTR YR 1982 TOTAL 10415.9 MEAN 28.5 MAX 230 MIN 6.3 AC-FT 20660

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to September 1980. April to September 1981, March to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1975 to September 1980.
WATER TEMPERATURE: January 1975 to September 1980.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1980. April to September 1981, March to September 1982 (discontinued).

REMARKS.--Prior to Dec. 23, 1975, station was 0.5 mi (0.8 km) downstream from present location. Since May 1976, periodic samples of suspended sediment have been collected by an observer. This station formerly known as Parachute Creek at Grand Valley, CO.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,440 micromhos June 4, 1977; minimum, 811 micromhos May 21, 1980.
WATER TEMPERATURES: Maximum, 32.0°C June 26, 1977, July 26, 27, 30, 1978; minimum, 0.0°C Mar. 5, Dec. 20-23, 1977, Feb. 6, 7, 9, 1979.
SEDIMENT CONCENTRATIONS: Maximum daily, 95,000 mg/L Aug. 25, 1977; minimum daily, 2 mg/L July 18, 1977.
SEDIMENT LOADS: Maximum daily, 82,000 tons (74,400 t) July 31, 1976; minimum daily, less than 0.005 ton (0.005 t) on many days during 1977.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 11,700 mg/L Oct. 3; minimum daily, 2 mg/L Oct. 1.
SEDIMENT LOADS: Maximum daily, 2,490 tons (2,740 t), May 5, minimum daily, 0.04 ton (0.04 t) Oct. 1.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN DIS-SOLVED (MG/L AS N)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
MAR											
10...	1200	11	1247	1340	8.5	10.5	9.3	1.8	490	88	66
MAY											
18...	1300	114	670	714	8.3	10.5	8.9	--	280	59	31
JUN											
17...	1400	37	1025	1050	8.4	17.0	7.8	--	400	78	49
JUL											
19...	1300	17	1230	1190	8.8	20.5	7.8	--	440	83	57
AUG											
17...	1200	15	1090	1170	8.1	14.0	8.6	--	430	72	60
SEP											
21...	1300	16	1080	1170	9.0	16.0	8.9	--	450	79	61

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
MAR											
10...	110	2.4	3.6	350	310	49	.7	16	858	1.2	26.4
MAY											
18...	49	1.4	1.9	230	100	19	.4	17	416	.57	128
JUN											
17...	83	2.0	3.3	326	200	26	.7	17	653	.89	64.7
JUL											
19...	100	2.3	4.3	364	260	32	.8	19	775	1.1	34.5
AUG											
17...	100	2.4	3.6	319	250	36	.7	19	733	1.0	29.9
SEP											
21...	100	2.3	3.7	317	250	35	3.7	19	742	1.0	32.7

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	ARSENIC DIS-SOLVED (UG/L AS AS)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)	PHENOLS (UG/L)
MAR											
10...	1.0	<.060	.84	<.010	5	150	9	16	3.3	.4	2
MAY											
18...	--	--	--	--	5	80	32	10	--	--	2
JUN											
17...	--	--	--	--	5	120	15	16	--	--	3
JUL											
19...	--	--	--	--	4	150	6	13	--	--	6
AUG											
17...	--	--	--	--	5	150	<3	5	--	--	8
SEP											
21...	--	--	--	--	4	140	<3	11	--	--	3

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR				
10...	1100	11	105	3.2
12...	1230	26	5670	398
JUN				
17...	1400	37	46	4.6
JUL				
19...	1230	17	55	2.5
AUG				
17...	1200	15	62	2.5
SEP				
21...	1200	16	10	.44

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	6.3	2	.04	12			12		
2	7.8	5	.12	13			12		
3	10	11700	336	12			12		
4	12	3530	106	12			11		
5	13	850	24	12			12		
6	11	369	9.3	12			12		
7	12	300	7.8	12			12		
8	12	315	8.4	12			12		
9	12	329	8.9	12			12		
10	12	311	8.3	12			12		
11	14	5930	269	12			12		
12	16	8490	345	12			12		
13	20	822	26	12			12		
14	18	3590	1000	12			12		
15	25	4810	278	12			12		
16	19	168	5.1	12			12		
17	14	483	5.0	12			12		
18	11	311	9.7	12			12		
19	11	253	8.3	12			12		
20	11	221	7.3	12			12		
21	11	198	6.5	12			12		
22	12	178	6.0	12			11		
23	11	195	6.6	12			11		
24	12	208	7.2	12			11		
25	11	217	7.7	12			11		
26	12	236	8.5	12			11		
27	12	252	9.4	11			12		
28	12	225	8.5	12			12		
29	13	3370	177	12			13		
30	16	6350	293	12			14		
31	14	---	---	---			14		
TOTAL	405.1	---	2992.66	360			371		

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	14			8.8			11	---	---
2	13			8.1			14	---	---
3	13			7.9			13	---	---
4	12			8.0			12	---	---
5	13			8.0			11	---	---
6	13			7.5			11	---	---
7	13			7.0			11	---	---
8	14			8.5			11	---	---
9	14			10			11	---	---
10	14			9.0			11	---	---
11	14			9.0			12	833	76
12	13			9.0			13	5890	439
13	14			9.0			14	---	100
14	14			8.5			14	---	60
15	14			9.3			14	---	50
16	13			9.2			14	797	41
17	13			11			15	2070	129
18	13			12			15	977	38
19	13			13			15	854	35
20	13			15			15	407	16
21	13			16			15	215	8.1
22	12			16			15	257	9.7
23	12			15			15	262	10
24	12			14			15	253	9.9
25	11			12			16	192	7.7
26	11			12			16	179	7.5
27	10			11			17	200	8.9
28	9.7			12			17	209	9.3
29	9.2			---			18	218	11
30	9.4			---			19	236	12
31	9.1			---			19	255	12
TOTAL	385.4			295.8			439	---	1090.1

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	20	259	14	133	3480	1170	76	288	61
2	20	209	11	151	3790	1420	69	213	42
3	20	169	9.0	171	3910	1720	67	182	34
4	21	174	8.9	207	4410	2430	66	214	40
5	22	192	9.6	230	4430	2490	64	211	38
6	22	183	8.9	190	1920	909	60	177	31
7	23	177	8.2	170	1360	567	56	117	19
8	23	186	8.5	150	1130	438	51	92	13
9	24	200	8.7	150	1060	392	49	97	13
10	24	202	8.8	140	1050	388	45	95	12
11	24	305	20	140	1050	375	43	65	7.5
12	28	705	61	140	1080	382	41	52	5.9
13	34	2990	322	140	850	315	41	46	5.0
14	41	3670	485	120	576	183	39	34	3.6
15	46	3610	540	110	573	173	38	41	4.3
16	48	1740	268	110	570	167	38	44	4.9
17	47	1040	156	110	573	167	36	46	4.4
18	47	1320	198	118	574	181	37	31	3.3
19	47	981	145	125	923	320	37	91	9.6
20	45	638	84	135	833	297	38	87	8.4
21	43	601	75	138	759	266	35	34	2.9
22	43	690	89	136	627	215	31	38	2.9
23	45	911	125	134	529	179	31	57	4.5
24	47	1060	156	132	531	179	30	18	1.3
25	52	1200	191	129	499	157	29	18	1.2
26	57	1740	298	119	387	108	28	23	1.6
27	63	2670	504	104	361	93	28	17	1.1
28	68	2190	438	101	317	78	27	9	.52
29	84	3250	784	91	276	65	25	10	.56
30	121	4460	1440	87	202	46	23	13	.68
31	---	---	---	81	241	54	---	---	---
TOTAL	1249	---	6474.6	4192	---	15924	1278	---	377.16

PARACHUTE CREEK BASIN

09093500 PARACHUTE CREEK AT PARACHUTE, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	25	27	1.5	16	39	1.3	8.0	4	.08
2	24	36	2.4	16	37	1.3	8.6	3	.08
3	22	37	2.0	16	39	1.4	8.6	3	.07
4	22	28	1.8	16	44	1.5	8.7	4	.09
5	22	20	1.3	15	29	.94	10	4	.11
6	22	25	1.7	14	22	.69	11	5	.15
7	21	15	1.0	13	22	.68	9.9	12	.31
8	18	152	12	14	76	2.6	9.4	13	.32
9	24	645	45	14	168	5.4	9.4	12	.31
10	24	293	20	13	71	2.2	10	21	.64
11	22	169	11	13	62	2.1	13	50	1.8
12	21	185	11	13	86	3.0	14	50	1.9
13	20	146	7.8	14	73	2.8	19	788	55
14	17	106	4.4	14	123	4.5	19	895	43
15	17	58	2.2	14	73	2.6	16	203	7.8
16	15	27	.93	14	219	8.0	16	102	3.9
17	15	42	1.4	14	65	2.5	15	9	.33
18	16	28	.93	14	5	.19	16	5	.18
19	16	53	2.2	14	6	.25	16	4	.16
20	15	40	1.6	14	6	.23	17	4	.14
21	15	43	1.7	14	6	.24	16	13	.55
22	16	34	1.3	14	6	.21	15	49	1.7
23	15	37	1.4	14	5	.21	15	51	1.7
24	15	27	.97	14	5	.18	15	23	.73
25	15	26	.92	14	4	.15	15	22	.72
26	16	182	6.7	14	4	.15	16	77	2.7
27	16	249	9.5	13	3	.10	20	2050	168
28	18	202	9.0	12	4	.12	23	4120	317
29	17	140	5.8	12	4	.12	22	3380	259
30	17	67	2.6	12	4	.12	25	3540	346
31	17	35	1.3	11	4	.10	---	---	---
TOTAL	575	---	173.35	429	---	45.88	436.6	---	1214.47
YEAR	10415.9		28292.22						

09093700 COLORADO RIVER NEAR DE BEQUE, CO

LOCATION.--Lat 39°21'45", long 108°09'07", in NE¼SW¼ sec.7, T.8 S., R.96 W., Mesa County, Hydrologic Unit 14010006, on left bank 3.0 mi (4.8 km) downstream from Alkali Creek and 3.8 mi (6.1 km) northeast of De Beque.

DRAINAGE AREA.--7,370 mi^2 (19,088 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (1,506 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres (639 km^2).

AVERAGE DISCHARGE.--16 years, 3,520 ft^3/s (99.69 m^3/s), 2,550,000 acre-ft/yr (3,140 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,500 ft^3/s (637 m^3/s) June 15, 1973, gage height, 11.07 ft (3.374 m); minimum daily, 914 ft^3/s (25.9 m^3/s) Dec. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) at 1000 June 19, gage height, 8.90 ft (2.713 m), maximum gage height, 9.50 ft (2.896 m) at 0900 Jan. 8 (backwater from ice); minimum daily discharge, 1,070 ft^3/s (30.3 m^3/s) Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	1900	1580	1630	1450	1710	1560	4000	10900	12400	4440	2600
2	1600	1880	1380	1590	1450	1760	1600	4700	10900	12300	4120	2490
3	1670	1920	1460	1460	1450	1880	1610	6400	10800	11600	3960	2410
4	1730	1800	1610	1410	1400	1860	1590	7770	10400	11000	3780	2350
5	2010	1820	1590	1370	1400	1730	1600	8540	10500	10500	3560	2490
6	2060	1820	1560	1490	1350	1640	1600	7800	11100	9710	3370	2660
7	1990	1830	1510	1520	1300	1570	1610	6450	11000	9080	3230	2670
8	1950	1850	1510	1490	1300	1630	1590	5610	11000	8420	3220	2610
9	1940	1800	1520	1300	1350	1550	1540	5430	11100	8170	3220	2580
10	1930	1770	1480	1300	1400	1580	1550	5610	11300	7870	3310	2560
11	1880	1750	1540	1400	1500	1590	1570	5690	11500	7450	3460	2650
12	1970	1720	1530	1470	1500	1740	2100	5670	11500	7310	3300	2940
13	2040	1720	1560	1500	1450	1770	2500	5810	12100	7070	3260	3390
14	2010	1710	1530	1550	1400	1790	2900	5580	12000	6810	3400	3430
15	2060	1720	1490	1570	1450	1770	3100	5020	11700	6390	3680	3270
16	2350	1700	1550	1550	1450	1830	3000	4660	10900	6160	3560	3160
17	2120	1700	1530	1550	1500	1840	2800	4570	11100	5920	3430	3050
18	2070	1680	1380	1550	1500	1760	2800	4580	12500	5640	3510	3130
19	2020	1640	1250	1550	1580	1700	2700	4920	13300	5330	3350	2900
20	1980	1590	1440	1550	1570	1640	2600	5350	12300	5070	3260	2880
21	1980	1580	1680	1600	1600	1610	2550	5580	11600	4970	3220	2940
22	1950	1630	1650	1600	1630	1520	2700	5960	11500	4760	3190	2820
23	1930	1650	1530	1550	1700	1500	3000	6940	11600	4680	3260	2720
24	1910	1680	1210	1500	1710	1520	3150	7950	11800	4590	3220	2720
25	1920	1600	1070	1450	1700	1520	3250	8330	11900	4500	3110	2710
26	1890	1590	1210	1500	1680	1540	3300	8230	11900	4300	3150	2700
27	1860	1580	1440	1500	1660	1610	3400	8900	11900	4390	3210	2770
28	1880	1470	1420	1550	1680	1620	3450	9980	12100	4660	3020	2910
29	1920	1600	1370	1500	---	1660	3550	10700	12600	5100	2830	2960
30	2040	1580	1500	1500	---	1700	4000	11300	12400	5240	2790	2950
31	1990	---	1660	1450	---	1650	---	11200	---	4890	2740	---
TOTAL	60310	51280	45740	46500	42110	51790	74270	209230	347200	216280	104160	84420
MEAN	1945	1709	1475	1500	1504	1671	2476	6749	11570	6977	3360	2814
MAX	2350	1920	1680	1630	1710	1880	4000	11300	13300	12400	4440	3430
MIN	1600	1470	1070	1300	1300	1500	1540	4000	10400	4300	2740	2350
AC-FT	119600	101700	90730	92230	83530	102700	147300	415000	688700	429000	206600	167400

CAL YR 1981 TOTAL 792580 MEAN 2171 MAX 9570 MIN 1000 AC-FT 1572000
WTR YR 1982 TOTAL 1333290 MEAN 3653 MAX 13300 MIN 1070 AC-FT 2645000

09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1973 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to September 1982 (discontinued).
WATER TEMPERATURE: August 1973 to September 1982 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,700 micromhos July 13, 1981; minimum daily, 260 micromhos May 29, 1981.
WATER TEMPERATURES: Maximum daily, 25.0°C July 1-4, 18-20, 1977; minimum daily, freezing point on many days during winter months each year.
SEDIMENT CONCENTRATIONS: Maximum daily, 2,090 mg/L Mar. 9, 1975; minimum daily, 2 mg/L Dec. 7, 17, 1975, Feb. 22, 1976.
SEDIMENT LOADS: Maximum daily, 41,300 tons (37,500 t) May 17, 1975; minimum daily, 8.4 tons (7.6 t) Feb. 22, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,400 micromhos Dec. 20; minimum daily, 320 micromhos July 2, 3.
WATER TEMPERATURES: Maximum daily, 21.0°C several days during July and Aug.; minimum daily, 0.0°C January 1 through January 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
OCT 19...	1200	2090	909	900	8.5	10.0	9.4	260
DEC 07...	1400	1610	1084	1130	8.6	5.5	11.8	260
MAR 08...	1200	1620	1153	1190	8.6	5.5	11.3	270
MAY 03...	1200	6570	480	475	7.9	12.0	8.4	160
JUN 15...	1300	11500	330	346	8.1	11.5	8.5	120
JUL 22...	1300	4720	550	585	8.3	18.5	7.5	160
SEP 08...	1200	2780	816	780	9.0	17.5	8.1	230

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT 19...	75	17	110	3.2	3.8	140	140	160	.3
DEC 07...	75	18	140	4.0	3.9	140	140	200	.3
MAR 08...	77	19	140	3.9	4.0	150	170	210	.3
MAY 03...	47	11	36	1.3	2.3	120	65	48	.2
JUN 15...	36	7.6	23	1.0	1.4	89	42	25	.2
JUL 22...	49	10	47	1.7	2.0	111	78	64	.2
SEP 08...	67	14	90	2.8	3.0	137	110	130	.3

09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 19...	8.4	601	.82	3390	.46	.010	24	12
DEC 07...	6.6	668	.91	2900	.11	.070	<10	13
MAR 08...	7.4	718	.98	3140	.12	.020	13	19
MAY 03...	9.0	292	.40	5180	.33	<.010	39	25
JUN 15...	7.9	197	.27	6120	.12	.030	70	20
JUL 22...	7.2	324	.44	4130	<.10	.020	8	5
SEP 08...	10	507	.69	3810	<.10	<.010	9	4

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 19...	1200	2090	146	824	--
DEC 07...	1400	1610	105	456	--
MAR 08...	1300	1620	45	197	--
MAY 03...	1200	6570	2600	46100	--
JUN 15...	1300	11500	111	3450	54
JUL 22...	1300	4720	33	421	--
SEP 08...	1300	2640	52	371	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	1000	1180	1200	1200	1300	1100	---	350	340	600	800
2	---	---	1180	1200	1200	1300	1080	---	350	320	600	800
3	---	---	---	1200	1200	1300	1100	440	340	320	620	800
4	---	---	---	1200	1200	1300	1100	440	340	350	620	800
5	---	---	1200	1200	1200	1300	1080	400	340	360	650	800
6	---	---	1200	1200	1200	1300	1100	380	340	360	650	900
7	---	1020	---	1200	1200	1300	1100	440	340	380	650	850
8	---	---	---	1200	1200	1300	1100	480	340	380	660	825
9	---	---	---	1200	1200	1250	1100	480	340	420	660	---
10	---	---	---	1200	1200	1250	1100	480	340	440	700	---
11	---	---	---	1200	1200	---	1100	480	340	460	680	---
12	---	---	---	1200	1200	1200	1080	---	340	460	700	---
13	---	---	---	1200	1200	1150	950	---	340	480	700	---
14	---	1000	---	1200	1200	1150	925	---	340	480	700	---
15	---	1000	---	1200	1200	1100	---	600	350	500	700	775
16	---	---	---	1200	1200	---	750	560	350	500	700	775
17	---	---	---	1200	1200	---	750	560	360	500	700	775
18	---	---	---	1100	1300	1100	700	580	360	500	---	800
19	---	---	---	1100	1300	1100	700	---	360	500	700	800
20	---	---	1400	1200	1200	---	725	480	350	---	710	800
21	---	---	---	1200	1300	---	700	420	350	500	720	800
22	---	1000	---	1200	1300	1180	675	500	350	500	720	800
23	---	---	---	1200	1300	1200	---	450	350	520	720	800
24	1000	---	---	1200	1300	1200	750	420	350	540	725	---
25	---	---	---	1200	1300	1150	750	400	350	580	750	---
26	---	---	---	1200	1300	1150	750	380	350	580	700	---
27	---	---	---	1200	1300	1150	650	340	360	---	650	---
28	---	---	---	1200	1300	1150	625	340	360	---	700	---
29	---	---	---	1200	---	1150	650	360	360	---	800	---
30	---	---	---	1200	---	---	600	---	360	---	800	---
31	---	---	---	---	---	1100	---	340	---	560	800	---
MEAN				1190	1240		885		348	455	693	

09093700 COLORADO RIVER NEAR DE BEQUE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	15.0	2.0	.0	1.0	3.0	9.0	---	13.0	15.0	20.0	17.0
2	---	---	2.0	.0	1.0	3.0	7.0	---	13.0	15.0	20.0	17.0
3	---	---	---	.0	1.0	4.0	8.0	15.0	13.0	15.0	21.0	18.0
4	---	---	---	.0	1.0	7.0	9.0	10.0	13.0	15.0	21.0	18.0
5	---	---	2.0	.0	1.0	4.0	9.0	10.0	13.0	16.0	18.0	18.0
6	---	---	2.0	.0	1.0	4.0	9.0	9.0	12.0	16.0	19.0	18.0
7	---	14.0	---	.0	1.0	4.0	9.0	10.0	13.0	16.0	19.0	17.0
8	---	---	---	.0	1.0	4.0	9.0	10.0	13.0	16.0	21.0	17.0
9	---	---	---	.0	1.0	4.0	10.0	10.0	13.0	17.0	21.0	---
10	---	---	---	.0	1.0	6.0	10.0	10.0	13.0	17.0	21.0	---
11	---	---	---	.0	2.0	---	12.0	10.0	14.0	15.0	17.0	---
12	---	---	---	.0	2.0	8.0	13.0	---	14.0	16.0	18.0	---
13	---	---	---	.0	2.0	9.0	13.0	---	14.0	17.0	21.0	---
14	---	7.0	---	.0	2.0	9.0	12.0	---	13.0	17.0	21.0	---
15	---	8.0	---	.0	2.0	8.0	---	10.0	14.0	16.0	21.0	16.0
16	---	---	---	.0	3.0	---	11.0	10.0	14.0	17.0	21.0	16.0
17	---	---	---	.0	3.0	---	11.0	12.0	15.0	17.0	18.0	16.0
18	---	---	---	.0	3.0	8.0	10.0	14.0	15.0	16.0	---	16.0
19	---	---	---	.0	3.0	7.0	8.0	---	15.0	16.0	20.0	15.0
20	---	---	3.0	.0	3.0	---	6.0	14.0	14.0	---	20.0	17.0
21	---	---	---	.0	3.0	---	8.0	14.0	14.0	21.0	21.0	17.0
22	---	3.0	---	.0	4.0	5.0	9.0	12.0	14.0	19.0	21.0	17.0
23	---	---	---	.0	4.0	8.0	---	14.0	15.0	20.0	21.0	17.0
24	8.0	---	---	.0	4.0	9.0	13.0	12.0	15.0	20.0	21.0	---
25	---	---	---	.0	5.0	9.0	12.0	12.0	15.0	19.0	18.0	---
26	---	---	---	.0	5.0	9.0	10.0	13.0	15.0	19.0	20.0	---
27	---	---	---	.0	5.0	9.0	10.0	14.0	15.0	---	18.0	---
28	---	---	---	.0	6.0	10.0	10.0	14.0	15.0	---	19.0	---
29	---	---	---	.0	---	9.0	12.0	12.0	15.0	---	18.0	---
30	---	---	---	.0	---	---	10.0	---	15.0	---	18.0	---
31	---	---	---	---	---	9.0	---	13.0	---	19.0	17.0	---
MEAN				.0	2.5	7.0	10.0		14.0	17.0	19.5	

09095400 DRY FORK NEAR DE BEQUE, CO

LOCATION.--Lat 39°22'08", long 108°15'41", in SE¼SW¼ sec.7, T.8 S., R.97 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.4 mi (0.6 km) upstream from mouth and 3.4 mi (5.5 km) northwest of De Beque.

DRAINAGE AREA.--109 mi² (282 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1974 to September 1982 (discontinued).

REVISED RECORDS.--WDR CO-76-2: 1975(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,085 ft (1,550 m), from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 4.78 ft³/s (0.135 m³/s) 3,460 acre-ft/yr (4.27 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 784 ft³/s (22.2 m³/s) Oct. 27, 1974, gage height, 7.11 ft (2.167 m), from floodmarks, from rating curve extended above 47 ft³/s (1.3 m³/s), on basis of slope-area measurement of peak flow at gage height 6.93 ft (2.112 m); no flow Aug. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s (1.4 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 15	1300	63	1.78	3.85	1.173	Sept. 5	1900	80	2.27	4.00	1.219
Feb. 12	----	----	----	*5.40a	1.646	Sept. 13	1730	*120	3.40	4.37	1.332
Aug. 15	2100	83	2.35	4.05	1.234	Sept. 19	1500	94	2.66	4.12	1.256
Aug. 21	2130	52	1.47	3.65	1.113						

a - Backwater from ice.

Minimum daily discharge, 0.06 ft³/s (0.002 m³/s) July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	2.0	1.1	.80	1.4	6.6	4.8	1.1	.39	.20	.14	1.6
2	.98	2.1	1.1	.80	1.4	18	3.6	.92	.26	.20	.20	1.6
3	5.3	2.0	1.1	.80	1.4	12	3.5	.50	.20	.20	.26	1.5
4	2.2	2.4	1.0	.80	1.4	9.7	3.3	.58	.12	.20	.20	1.4
5	1.6	2.2	1.0	.70	1.4	5.0	3.0	.58	.10	.20	.10	5.8
6	1.4	2.2	1.1	.70	1.4	3.5	3.0	.58	.10	.20	.07	1.6
7	1.2	2.1	1.0	.70	1.4	3.6	2.7	.61	.10	.20	.07	1.8
8	1.3	2.3	1.0	.70	1.5	3.5	2.1	.58	.10	.32	.10	2.0
9	1.4	2.1	1.0	.70	1.6	3.5	1.4	.54	.10	.32	.07	1.5
10	1.2	1.9	1.0	.70	1.6	4.5	1.4	.46	.10	.26	.08	1.7
11	3.0	2.0	1.0	.70	1.6	5.2	1.4	.50	.10	.26	.10	7.5
12	4.0	1.9	1.0	.70	1.6	27	1.4	1.7	.10	.24	.10	4.5
13	2.6	2.1	1.0	.70	1.6	8.2	1.5	2.6	.10	.10	.10	26
14	1.5	2.0	1.0	.70	1.6	6.8	1.5	2.3	.10	.08	.14	4.3
15	16	1.9	1.0	.80	1.6	9.7	1.6	2.2	.10	.07	7.3	2.8
16	12	2.0	1.1	.80	1.6	12	1.5	2.0	.10	.07	4.7	2.0
17	2.0	2.4	1.1	.80	1.6	11	1.4	2.1	.10	.07	1.4	1.9
18	1.8	2.3	1.2	.80	1.7	7.3	.98	2.2	.08	.07	.50	2.0
19	1.6	1.8	1.2	.80	2.2	5.9	.82	2.3	.07	.07	.46	14
20	1.6	1.9	1.1	.80	4.0	5.5	.87	2.0	.07	.07	.50	4.0
21	1.6	2.1	1.0	.80	9.6	4.0	1.4	.50	.07	.07	4.1	1.8
22	1.4	2.8	1.3	.80	14	3.6	1.1	.35	.07	.07	2.1	1.7
23	1.4	2.3	1.3	.80	17	3.8	1.1	.54	1.2	.07	1.4	2.0
24	1.4	1.9	1.2	.90	14	2.7	1.6	.87	.24	.07	1.5	1.8
25	1.4	2.3	1.2	1.0	11	3.3	1.2	.70	.22	.07	1.8	1.9
26	1.4	1.2	1.0	1.0	11	3.5	1.2	.54	.22	.07	1.8	2.3
27	1.6	1.1	.90	1.0	7.9	7.3	1.0	.46	.22	.07	1.7	13
28	1.5	1.0	.80	1.1	7.3	5.0	1.2	.65	.22	.06	1.8	18
29	5.2	.90	.80	1.2	---	4.6	1.2	.43	.22	.08	1.7	12
30	5.5	.90	.80	1.3	---	4.3	1.3	.39	.22	.16	1.6	7.4
31	3.0	---	.80	1.4	---	4.5	---	.46	---	.16	1.6	---
TOTAL	88.95	58.10	32.20	26.30	125.4	215.1	54.07	32.24	5.39	4.35	37.69	151.4
MEAN	2.87	1.94	1.04	.85	4.48	6.94	1.80	1.04	.18	.14	1.22	5.05
MAX	16	2.8	1.3	1.4	17	27	4.8	2.6	1.2	.32	7.3	26
MIN	.87	.90	.80	.70	1.4	2.7	.82	.35	.07	.06	.07	1.4
AC-FT	176	115	64	52	249	427	107	64	11	8.6	75	300

CAL YR 1981 TOTAL 876.22 MEAN 2.40 MAX 16 MIN .20 AC-FT 1740
WTR YR 1982 TOTAL 831.19 MEAN 2.28 MAX 27 MIN .06 AC-FT 1650

NOTE.--NO GAGE-HEIGHT RECORD DEC. 7 TO FEB. 12.

09095400 DRY FORK NEAR DEBEQUE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1982 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN DISSOLVED (MG/L AS N)	HARDNESS (MG/L AS CACO3)
MAR 09...	1300	3.0	2400	2340	8.4	10.0	8.5	1.5	840
MAY 20...	1100	2.3	2000	2000	8.5	14.0	--	--	600
JUN 17...	1200	.10	3800	3840	8.2	19.5	7.2	--	1300
JUL 12...	1200	.45	2620	2790	8.2	21.5	6.9	--	790
AUG 16...	1300	2.2	1586	1740	8.3	20.5	6.6	--	550
SEP 23...	1200	2.0	1990	1940	8.8	16.0	7.8	--	610

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
MAR 09...	120	130	300	4.5	3.4	400	990	13	.4
MAY 20...	80	97	240	5.0	2.3	380	700	9.7	.5
JUN 17...	200	190	590	7.2	3.5	476	2000	16	.5
JUL 12...	100	130	390	6.1	4.9	419	1200	7.5	.4
AUG 16...	120	60	210	4.3	6.7	347	680	8.4	.3
SEP 23...	78	100	250	5.2	2.4	335	780	8.5	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAR 09...	15	1810	2.5	14.7	.45	.120	.88	1.0	.010
MAY 20...	16	1370	1.9	8.5	--	--	--	--	--
JUN 17...	16	3300	4.5	.89	--	--	--	--	--
JUL 12...	12	2100	2.9	2.6	--	--	--	--	--
AUG 16...	14	1310	1.8	7.8	--	--	--	--	--
SEP 23...	16	1440	2.0	7.8	--	--	--	--	--

09095400 DRY FORK NEAR DEBEQUE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	PHENOLS (UG/L)
MAR 09...	5	120	60	40	6.9	>40	2
MAY 20...	5	100	<9	20	--	--	<1
JUN 17...	3	180	40	180	--	--	7
JUL 12...	4	160	20	70	--	--	3
AUG 16...	6	90	10	6	--	--	7
SEP 23...	4	120	< 3	20	--	--	7

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAR 09...	1300	3.0	3960	32	--
JUN 17...	1200	.10	32	.01	--
JUL 12...	1200	.45	40	.05	--
AUG 16...	1300	2.2	37100	220	99
SEP 23...	1100	2.0	178	.96	--

09095500 COLORADO RIVER NEAR CAMEO, CO

LOCATION.--Lat 39°14'20", long 108°16'00", in SW¼SW¼ sec.30, T.9 S., R.97 W., Mesa County, Hydrologic Unit 14010006, on left bank 100 ft (30 m) north of U.S. Highways 6 and 24, 0.5 mi (0.8 km) upstream from Jackson Canyon, 5.9 mi (9.5 km) upstream from Grand Valley project diversion dam, and 7 mi (11 km) northeast of Cameo.

DRAINAGE AREA.--8,050 mi² (20,850 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder. Datum of gage is 4,813.73 ft (1,467.225 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 10, 1934, nonrecording gage on river and water-stage recorder on Highline Canal, about 10 mi (16 km) downstream at different datum. Oct. 10, 1934, to Feb. 27, 1958, water-stage recorder at site 3.0 mi (4.8 km) downstream at datum 22.55 ft (6.873 m) lower.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 160,000 acres (648 km²).

AVERAGE DISCHARGE.--49 years, 3,780 ft³/s (107.0 m³/s), 2,739,000 acre-ft/yr (3,377 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s (1,020 m³/s) June 16, 1935, gage height, 10.91 ft (3.325 m), site and datum then in use; maximum gage height, 11.60 ft (3.536 m) June 8, 1952, site and datum then in use; minimum daily discharge, 700 ft³/s (19.8 m³/s) Dec. 29, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,600 ft³/s (385 m³/s) at 1200 June 19, gage height, 8.41 ft (2.563 m); minimum daily, 1,040 ft³/s (29.5 m³/s) Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1630	1840	1480	1670	1400	1510	1510	3890	11000	12200	4370	2690
2	1570	1810	1330	1640	1500	1650	1540	4960	11000	12100	4080	2580
3	1660	1850	1400	1600	1500	1780	1570	6230	11000	11400	3910	2530
4	1720	1730	1500	1500	1500	1780	1550	7850	10500	10600	3720	2470
5	1940	1750	1530	1400	1400	1610	1570	8770	11000	10200	3520	2620
6	2010	1760	1500	1500	1300	1500	1550	8150	11500	9280	3340	2840
7	1920	1770	1460	1500	1400	1400	1570	6740	11000	8600	3210	2840
8	1880	1780	1460	1500	1200	1480	1560	5830	10900	7900	3170	2820
9	1860	1730	1470	1300	1200	1400	1510	5550	11100	7620	3180	2770
10	1860	1710	1430	1300	1200	1460	1520	5660	11300	7390	3250	2760
11	1810	1680	1490	1300	1250	1470	1530	5740	11500	6920	3480	2850
12	1880	1640	1470	1400	1300	1700	1640	5730	11500	6850	3270	3110
13	1980	1640	1500	1500	1300	1810	2060	5870	12200	6630	3240	3650
14	1930	1630	1480	1500	1300	1710	2290	5710	12100	6420	3340	3700
15	2030	1630	1430	1600	1250	1690	2610	5120	11700	6000	3650	3490
16	2400	1620	1490	1600	1300	1740	2850	4780	10900	5800	3620	3320
17	2010	1620	1470	1600	1300	1740	2970	4670	10900	5570	3490	3230
18	1970	1600	1350	1600	1400	1690	2780	4670	12300	5330	3590	3300
19	1920	1550	1210	1600	1450	1620	2820	4970	13400	5050	3460	3070
20	1920	1490	1340	1600	1400	1550	2780	5410	12300	4810	3400	3030
21	1930	1480	1610	1600	1320	1530	2610	5620	11400	4750	3350	3050
22	1910	1540	1620	1700	1340	1460	2350	5930	11200	4590	3330	3010
23	1880	1540	1480	1700	1370	1410	2320	6910	11400	4510	3430	2890
24	1860	1580	1240	1500	1390	1450	2550	7950	11500	4420	3360	2820
25	1870	1500	1040	1500	1400	1450	2670	8380	11700	4350	3170	2850
26	1850	1510	1120	1500	1400	1460	2910	8260	11700	4190	3200	2850
27	1810	1480	1380	1500	1410	1540	3120	8820	11800	4260	3290	2910
28	1830	1370	1360	1600	1460	1550	3260	10100	11800	4480	3140	3050
29	1880	1490	1390	1600	---	1600	3270	11000	12400	4860	2920	3200
30	1990	1480	1500	1550	---	1650	3610	11700	12300	5060	2850	3100
31	1940	---	1670	1450	---	1610	---	11600	---	4760	2820	---
TOTAL	58650	48800	44200	47410	37940	49000	68450	212570	346300	206900	105150	89400
MEAN	1892	1627	1426	1529	1355	1581	2282	6857	11540	6674	3392	2980
MAX	2400	1850	1670	1700	1500	1810	3610	11700	13400	12200	4370	3700
MIN	1570	1370	1040	1300	1200	1400	1510	3890	10500	4190	2820	2470
AC-FT	116300	96790	87670	94040	75250	97190	135800	421600	686900	410400	208600	177300

CAL YR 1981 TOTAL 771050 MEAN 2112 MAX 9400 MIN 1000 AC-FT 1529000
WTR YR 1982 TOTAL 1314770 MEAN 3602 MAX 13400 MIN 1040 AC-FT 2608000

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1933 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1935 to current year.
WATER TEMPERATURES: April 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,970 micromhos Jan. 19, 1940; minimum daily, 235 micromhos May 26, 1936.
WATER TEMPERATURES: Maximum, 24°C Aug. 16, 1962; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,500 micromhos Jan. 11; minimum daily, 320 micromhos several days in June and July
WATER TEMPERATURES: Maximum daily, 22.0°C July 24, Aug. 21; minimum daily observed, 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	NITROGEN DISSOLVED (MG/L AS N)	HARDNESS (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
OCT										
20...	1200	2020	987	985	8.7	9.0	9.3	--	260	75
MAR										
03...	1200	1680	1129	1110	8.4	8.0	9.5	1.1	260	73
JUN										
16...	1200	10800	340	366	8.5	11.0	8.6	2.6	130	39

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT										
20...	18	110	3.1	3.9	140	150	160	.3	8.1	610
MAR										
03...	19	160	4.6	4.6	170	170	180	.3	8.6	719
JUN										
16...	7.9	24	1.0	1.3	91	38	27	.2	8.0	209

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, NH4 + ORG. SUSP. TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	PHOSPHORUS, DISSOLVED (MG/L AS P)
OCT										
20...	.83	3330	<.09	<.09	.32	.08	.24	--	.040	<.010
MAR										
03...	.98	3260	.31	.34	.80	.08	.72	1.1	<.010	<.010
JUN										
16...	.28	6090	.12	--	.90	.30	.60	1.0	.110	.040

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)
OCT									
20...	2	<1	0	--	7	<1	9	0	18
MAR									
03...	3	1	1	5	11	<1	21	13	110
JUN									
16...	2	1	<1	<1	4	<1	5	1	62

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
20...	5	2	5	.3	.0	1	1	30	4
MAR									
03...	6	3	17	<.1	.2	2	2	70	<3
JUN									
16...	4	<1	6	.3	<.1	1	1	40	14

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	975	1180	1120	1100	1100	1100	600	360	320	570	785
2	1080	1000	1120	1080	1100	1100	1150	570	350	320	600	785
3	1060	1050	1200	1100	1120	1100	1100	510	350	330	625	825
4	1120	1000	1120	1150	1120	1100	1100	440	350	340	625	825
5	1100	1100	1200	1200	1200	1020	1100	400	360	350	650	850
6	1050	1050	1150	1250	1250	1100	1080	390	340	360	670	900
7	1000	1100	1150	1200	1300	1120	1100	420	350	380	690	825
8	1000	1050	1150	1180	1400	1100	1100	460	360	400	700	825
9	1000	1050	1150	1350	1450	1120	1100	500	340	430	715	825
10	1050	1020	1180	1200	1350	1100	1050	510	330	440	715	800
11	1020	1050	1180	1500	1200	1100	1080	500	320	450	700	850
12	1050	1050	1200	1450	1150	1150	1080	500	320	460	710	840
13	1020	1100	1180	1300	1120	1150	1050	510	320	460	750	780
14	1020	1150	1120	1200	1120	1050	900	500	320	460	740	765
15	1020	1150	1150	1050	1150	1100	850	530	320	470	725	725
16	1000	1150	1150	900	1120	1100	750	560	330	480	690	775
17	1000	1150	1150	1100	1100	1100	700	580	360	500	660	725
18	1000	1120	1220	1100	1050	1080	700	600	340	500	690	715
19	1000	1120	1100	900	1050	1080	675	580	320	520	675	750
20	1000	1120	1200	1080	1020	1150	750	550	320	530	700	780
21	1020	1120	1250	1050	1050	1100	700	530	350	540	725	790
22	1020	1120	1120	1050	1050	1100	750	510	350	540	770	760
23	1000	1200	1050	1000	1100	1120	775	480	340	550	700	800
24	1050	1180	1100	1100	1080	1180	750	440	340	540	710	800
25	1000	1120	1180	1100	1080	1150	725	420	340	560	700	800
26	1020	1120	1300	1100	1080	1150	700	410	330	560	700	800
27	1050	1150	1450	1050	1100	1150	650	420	330	600	700	825
28	1050	1120	1400	1080	1080	1120	650	370	330	600	700	810
29	1050	1150	1300	1120	---	1100	625	360	320	625	725	800
30	1020	1150	1250	1100	---	1100	625	350	320	550	775	825
31	1000	---	1250	1100	---	1080	---	340	---	540	760	---
MEAN	1030	1100	1190	1140	1150	1110	882	479	337	474	696	799

WTR YR 1982 MEAN 864 MAX 1500 MIN 320

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	6.0	1.0	1.0	.0	7.0	8.0	13.0	12.0	15.0	20.0	18.0
2	15.0	6.0	.0	.0	.0	7.0	6.0	13.0	12.0	14.0	20.0	18.0
3	15.0	7.0	.0	.0	.0	7.0	7.0	14.0	13.0	14.0	20.0	18.0
4	14.0	7.0	.0	.0	.0	5.0	7.0	13.0	13.0	15.0	20.0	18.0
5	13.0	7.0	1.0	.0	.0	5.0	8.0	12.0	13.0	15.0	20.0	18.0
6	13.0	6.0	2.0	.0	.0	5.0	9.0	9.0	12.0	13.0	20.0	18.0
7	13.0	7.0	1.0	.0	.0	5.0	8.0	9.0	12.0	14.0	21.0	18.0
8	14.0	7.0	1.0	.0	.0	6.0	6.0	11.0	12.0	15.0	21.0	16.0
9	13.0	7.0	3.0	.0	.0	5.0	7.0	11.0	12.0	16.0	20.0	17.0
10	12.0	6.0	2.0	.0	.0	6.0	8.0	10.0	12.0	15.0	20.0	17.0
11	14.0	6.0	2.0	.0	1.0	7.0	9.0	12.0	13.0	16.0	20.0	17.0
12	11.0	6.0	2.0	.0	1.0	7.0	11.0	12.0	13.0	16.0	18.0	15.0
13	12.0	6.0	3.0	.0	.0	8.0	12.0	10.0	13.0	16.0	19.0	15.0
14	11.0	6.0	2.0	.0	.0	8.0	11.0	9.0	12.0	17.0	19.0	13.0
15	11.0	7.0	2.0	.0	1.0	9.0	11.0	10.0	12.0	17.0	19.0	13.0
16	10.0	7.0	3.0	.0	1.0	8.0	10.0	11.0	13.0	17.0	20.0	13.0
17	11.0	7.0	2.0	.0	1.0	8.0	9.0	12.0	14.0	18.0	20.0	16.0
18	11.0	7.0	1.0	.0	1.0	8.0	9.0	14.0	14.0	18.0	21.0	15.0
19	11.0	6.0	1.0	.0	1.0	8.0	10.0	14.0	13.0	19.0	21.0	15.0
20	10.0	5.0	2.0	.0	1.0	5.0	7.0	13.0	12.0	19.0	21.0	16.0
21	10.0	4.0	3.0	.0	1.0	6.0	6.0	12.0	13.0	20.0	22.0	16.0
22	10.0	4.0	3.0	.0	1.0	6.0	7.0	14.0	14.0	21.0	21.0	16.0
23	9.0	5.0	1.0	.0	2.0	6.0	10.0	14.0	14.0	21.0	21.0	16.0
24	9.0	5.0	.0	.0	3.0	6.0	10.0	14.0	13.0	22.0	20.0	16.0
25	8.0	6.0	1.0	.0	4.0	8.0	12.0	12.0	14.0	20.0	20.0	16.0
26	8.0	3.0	.0	.0	5.0	9.0	12.0	12.0	14.0	21.0	19.0	16.0
27	8.0	2.0	.0	1.0	6.0	9.0	12.0	14.0	14.0	21.0	19.0	15.5
28	9.0	2.0	.0	.0	6.0	10.0	11.0	13.0	15.0	20.0	19.0	12.0
29	8.0	3.0	.0	.0	---	10.0	13.0	13.0	15.0	20.0	18.0	11.0
30	8.0	3.0	2.0	.0	---	7.0	11.0	12.0	15.0	20.0	19.0	12.0
31	6.0	---	1.0	.0	---	6.0	---	11.0	---	19.0	19.0	---
MEAN	11.0	5.5	1.5	.0	1.5	7.0	9.0	12.0	13.0	17.5	20.0	15.5

WTR YR 1982 MEAN 9.5 MAX 22.0 MIN .0

09095526 GOVERNMENT HIGHLINE CANAL AT 16 ROAD, NEAR LOMA, CO

LOCATION.--Lat 39°15'27" long 108°45'26", in NE¼SE¼ sec.12, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 0.2 mi (0.3 km) downstream from county bridge on 16 Road, 0.4 mi (0.6 km) north of Q Road, and 5.1 mi (8.2 km) northeast of Loma.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder and Marsh-McBirney velocity meter. Altitude of gage is 4,740 ft (1,445 m), from topographic map. Prior to Apr. 1, 1981, gage at site 0.2 mi (0.3 km) upstream at different datum.

REMARKS.--Records poor. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Reed Wash and Salt Creek basins. Surplus flows are wasted into Reed Wash and Highline Lake. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 378 ft³/s (10.7 m³/s) Sept. 11, 1982; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	.00	.00	.00	.00	.00	.00	311	325	330	314	329
2	295	.00	.00	.00	.00	.00	.00	308	330	330	321	334
3	305	.00	.00	.00	.00	.00	.00	292	320	335	313	339
4	310	.00	.00	.00	.00	.00	.00	301	315	325	320	338
5	320	.00	.00	.00	.00	.00	.00	295	330	320	322	334
6	310	.00	.00	.00	.00	.00	.00	284	315	310	330	347
7	310	.00	.00	.00	.00	.00	.00	310	310	310	314	361
8	345	.00	.00	.00	.00	.00	.00	311	325	300	311	372
9	350	.00	.00	.00	.00	.00	90	279	305	295	300	354
10	350	.00	.00	.00	.00	.00	200	283	300	300	282	356
11	340	.00	.00	.00	.00	.00	230	318	300	300	246	378
12	340	.00	.00	.00	.00	.00	244	310	290	290	247	357
13	330	.00	.00	.00	.00	.00	49	315	285	308	273	354
14	330	.00	.00	.00	.00	.00	59	310	280	309	294	355
15	335	.00	.00	.00	.00	.00	147	300	280	303	308	340
16	340	.00	.00	.00	.00	.00	171	310	280	303	325	347
17	340	.00	.00	.00	.00	.00	169	315	285	296	304	350
18	345	.00	.00	.00	.00	.00	199	320	285	289	314	358
19	345	.00	.00	.00	.00	.00	238	325	285	287	312	355
20	345	.00	.00	.00	.00	.00	224	330	300	282	313	360
21	310	.00	.00	.00	.00	.00	226	330	290	292	317	362
22	260	.00	.00	.00	.00	.00	245	335	290	296	324	350
23	220	.00	.00	.00	.00	.00	287	330	290	306	320	337
24	200	.00	.00	.00	.00	.00	281	320	300	311	313	332
25	185	.00	.00	.00	.00	.00	279	320	315	304	300	335
26	85	.00	.00	.00	.00	.00	291	310	315	298	309	326
27	50	.00	.00	.00	.00	.00	299	310	315	307	306	330
28	20	.00	.00	.00	.00	.00	287.	300	320	314	306	327
29	5.0	.00	.00	.00	---	.00	279	320	320	329	304	328
30	.00	.00	.00	.00	---	.00	286	320	330	319	312	342
31	.00	---	.00	.00	---	.00	---	325	---	320	332	---
TOTAL	7920.00	.00	.00	.00	.00	.00	4780.00	9647	9130	9518	9506	10387
MEAN	255	.000	.000	.000	.000	.000	159	311	304	307	307	346
MAX	350	.00	.00	.00	.00	.00	299	335	330	335	332	378
MIN	.00	.00	.00	.00	.00	.00	.00	279	280	282	246	326
AC-FT	15710	.00	.00	.00	.00	.00	9480	19130	18110	18880	18860	20600

CAL YR 1981 TOTAL 63070.00 MEAN 173 MAX 360 MIN .00 AC-FT 125100
WTR YR 1982 TOTAL 60888.00 MEAN 167 MAX 378 MIN .00 AC-FT 120800

NOTE.--NO GAGE-HEIGHT RECORD MAY 12 TO JULY 12.

09095529 CAMP NO. 7 SPILLWAY NEAR MACK, CO

LOCATION.--Lat 39°16'22", long 108°49'56", in NE¼SE¼ sec.5, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 10410005, on right bank at dam on spillway, 10 ft (3 m) downstream from headgates on Government Highline Canal, and 3.7 mi (6.0 km) north of Mack.

PERIOD OF RECORD.--October 1975 to September 1982 (discontinued).

GAGE.--Water-stage recorder and concrete weir. Altitude of gage is 4,720 ft (1,439 m), from topographic map. Prior to Mar. 30, 1976, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Government Highline Canal diverts from Colorado River in SW¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is waste water into Highline Lake. Flow is regulated by a diversion gate.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 182 ft^3/s (5.15 m^3/s) Apr. 4, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	.22	.00	.00	.00	.00	.00	1.6	54	.97	6.6	41
2	52	.21	.00	.00	.00	.00	.00	1.6	51	2.2	20	35
3	55	.13	.00	.00	.00	.00	.00	7.8	37	6.2	15	36
4	55	.25	.00	.00	.00	.00	.00	17	28	23	16	38
5	56	.10	.00	.00	.00	.00	.00	19	35	28	19	45
6	61	.00	.00	.00	.00	.00	.00	10	38	32	24	54
7	70	.00	.00	.00	.00	.00	.00	7.8	35	31	23	58
8	81	.00	.00	.00	.00	.00	.00	24	21	18	14	66
9	81	.00	.00	.00	.00	.00	11	20	29	8.0	7.7	53
10	81	.00	.00	.00	.00	.00	85	30	35	9.5	3.8	58
11	90	.00	.00	.00	.00	.00	71	27	33	6.1	2.3	74
12	82	.00	.00	.00	.00	.00	63	25	26	7.9	1.7	73
13	84	.00	.00	.00	.00	.00	18	33	13	23	2.3	79
14	93	.00	.00	.00	.00	.00	22	34	4.6	23	23	87
15	99	.00	.00	.00	.00	.00	62	32	.00	6.6	45	88
16	102	.00	.00	.00	.00	.00	39	37	3.1	1.2	53	91
17	110	.00	.00	.00	.00	.00	16	38	.20	1.1	44	90
18	105	.00	.00	.00	.00	.00	22	26	.00	1.1	40	89
19	107	.00	.00	.00	.00	.00	51	28	7.0	1.1	38	84
20	112	.00	.00	.00	.00	.00	46	26	22	1.1	40	85
21	110	.00	.00	.00	.00	.00	45	15	46	1.1	46	85
22	90	.00	.00	.00	.00	.00	48	21	57	1.2	55	87
23	60	.00	.00	.00	.00	.00	39	6.8	54	14	59	87
24	11	.00	.00	.00	.00	.00	21	18	57	13	58	85
25	8.2	.00	.00	.00	.00	.00	15	26	56	.59	51	85
26	6.7	.00	.00	.00	.00	.00	17	27	52	.50	55	84
27	3.0	.00	.00	.00	.00	.00	14	33	49	.34	55	102
28	1.1	.00	.00	.00	.00	.00	4.4	33	42	.22	54	84
29	.93	.00	.00	.00	---	.00	1.5	41	25	.00	55	82
30	2.0	.00	.00	.00	---	.00	1.3	44	11	2.7	56	82
31	.41	---	.00	.00	---	.00	---	53	---	4.5	52	---
TOTAL	1922.34	.91	.00	.00	.00	.00	712.20	762.6	920.90	269.22	1034.4	2187
MEAN	62.0	.030	.000	.000	.000	.000	23.7	24.6	30.7	8.68	33.4	72.9
MAX	112	.25	.00	.00	.00	.00	85	53	57	32	59	102
MIN	.41	.00	.00	.00	.00	.00	.00	1.6	.00	.00	1.7	35
AC-FT	3810	1.8	.00	.00	.00	.00	1410	1510	1830	534	2050	4340

CAL YR 1981 TOTAL 7130.16 MEAN 19.5 MAX 182 MIN .00 AC-FT 14140
WTR YR 1982 TOTAL 7809.57 MEAN 21.4 MAX 112 MIN .00 AC-FT 15490

NOTE.--NO GAGE-HEIGHT RECORD AUG. 5 TO SEPT. 8.

09095530 GOVERNMENT HIGHLINE CANAL NEAR MACK, CO

LOCATION.--Lat 39°17'09", long 108°49'46", in NE¼SE¼ sec.12, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 50 ft (15 m) upstream from flume over Mack Wash, 1.1 mi (1.8 km) downstream from headgate of Lateral No. 48, and 4.6 mi (7.4 km) north of Mack.

PERIOD OF RECORD.--Streamflow records, April 1973 to September 1982 (discontinued). Water-quality data available, August 1973 to September 1980.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,717 ft (1,438 m), from topographic map.

REMARKS.--Records good. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Salt Creek basin. Surplus flows are wasted into West Salt Creek and Badger Wash. Water can be wasted into Mack Wash from flume below gage. The entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 178 ft³/s (5.04 m³/s) Aug. 22, 1982; no flow for part of each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 178 ft³/s (5.04 m³/s) Aug. 22; no flow part of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	.20	.00	.00	.00	.00	.00	137	144	144	161	154
2	130	.07	.00	.00	.00	.00	.00	142	151	144	157	155
3	131	.02	.00	.00	.00	.00	.00	151	148	148	152	156
4	131	.00	.00	.00	.00	.00	.00	151	148	148	150	158
5	133	.00	.00	.00	.00	.00	.00	148	148	148	152	158
6	128	.00	.00	.00	.00	.00	.00	148	148	144	153	159
7	126	.00	.00	.00	.00	.00	.00	148	144	148	155	151
8	127	.00	.00	.00	.00	.00	.00	148	144	148	158	148
9	127	.00	.00	.00	.00	.00	.00	148	144	148	164	148
10	126	.00	.00	.00	.00	.00	68	148	144	148	167	143
11	116	.00	.00	.00	.00	.00	110	148	144	148	158	142
12	96	.00	.00	.00	.00	.00	110	144	144	148	153	141
13	94	.00	.00	.00	.00	.00	60	144	144	148	164	126
14	94	.00	.00	.00	.00	.00	26	144	154	148	169	128
15	94	.00	.00	.00	.00	.00	50	144	159	148	169	135
16	95	.00	.00	.00	.00	.00	76	144	160	148	167	122
17	96	.00	.00	.00	.00	.00	82	144	154	144	164	108
18	96	.00	.00	.00	.00	.00	80	144	154	144	163	108
19	98	.00	.00	.00	.00	.00	96	144	154	140	162	107
20	97	.00	.00	.00	.00	.00	110	144	154	130	164	107
21	93	.00	.00	.00	.00	.00	110	144	154	148	165	107
22	90	.00	.00	.00	.00	.00	100	144	151	144	178	108
23	88	.00	.00	.00	.00	.00	130	144	151	148	170	109
24	82	.00	.00	.00	.00	.00	140	144	151	153	168	109
25	76	.00	.00	.00	.00	.00	140	144	151	152	172	109
26	54	.00	.00	.00	.00	.00	140	140	154	149	173	111
27	45	.00	.00	.00	.00	.00	142	140	154	142	172	111
28	33	.00	.00	.00	.00	.00	139	140	154	141	175	110
29	4.7	.00	.00	.00	---	.00	128	144	154	157	174	112
30	.91	.00	.00	.00	---	.00	126	144	140	160	168	113
31	.48	---	.00	.00	---	.00	---	144	---	163	156	---
TOTAL	2832.09	.29	.00	.00	.00	.00	2163.00	4485	4498	4571	5073	3853
MEAN	91.4	.010	.000	.000	.000	.000	72.1	145	150	147	164	128
MAX	133	.20	.00	.00	.00	.00	142	151	160	163	178	159
MIN	.48	.00	.00	.00	.00	.00	.00	137	140	130	150	107
AC-FT	5620	.6	.00	.00	.00	.00	4290	8900	8920	9070	10060	7640

CAL YR 1981	TOTAL 26660.38	MEAN 73.0	MAX 156	MIN .00	AC-FT 52880
WTR YR 1982	TOTAL 27475.38	MEAN 75.3	MAX 178	MIN .00	AC-FT 54500

NOTE.--NO GAGE-HEIGHT RECORD MAY 3 TO JUNE 14, JUNE 17 to JULY 23.

09105000 PLATEAU CREEK NEAR CAMEO, COLO.

LOCATION.--Lat 39°11'01", long 108°16'06", in NW¼SW¼ sec.18, T.10 S., R.97 W., Mesa County, Hydrologic Unit 14010005, on left bank 300 ft (91 m) from State Highway 65, 1.1 mi (1.8 km) upstream from mouth, and 4.0 mi (6.4 km) northeast of Cameo.

DRAINAGE AREA.--592 mi² (1,533 km²).

PERIOD OF RECORD.--October 1935 to current year. Prior to May 1936, monthly discharge only, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1942. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,836 ft (1,474 m), from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres (101 km²), return flow from irrigated areas, and for power development. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--47 years, 179 ft³/s (5.069 m³/s), 129,700 acre-ft/yr (160 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft³/s (158 m³/s) June 15, 1973, gage height, 7.99 ft (2.435 m); minimum daily, 8.2 ft³/s (0.23 m³/s) Aug. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,200 ft³/s (34.0 m³/s) at 0700 June 18, gage height, 5.11 ft (1.558 m); minimum daily, 55 ft³/s (1.56 m³/s) Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	103	76	65	75	90	112	491	593	531	139	143
2	95	104	81	66	75	90	101	552	558	477	151	138
3	84	103	77	65	80	90	92	634	525	409	150	133
4	92	101	77	65	80	90	107	766	532	366	152	132
5	135	98	75	65	80	86	113	732	580	331	135	147
6	144	93	72	65	80	75	109	564	546	300	126	159
7	138	99	74	60	80	79	106	490	475	266	122	145
8	140	98	73	60	80	77	92	499	506	251	127	129
9	122	92	73	60	80	75	97	547	565	295	133	135
10	98	88	76	60	80	75	95	498	641	289	127	141
11	99	86	77	60	80	70	108	462	616	269	150	217
12	115	84	78	55	85	75	261	453	741	229	163	221
13	114	85	78	60	85	80	372	568	791	195	157	252
14	110	84	72	60	80	75	379	417	732	176	166	280
15	128	84	79	60	80	75	401	403	771	164	156	241
16	238	83	77	65	80	75	355	395	693	161	141	259
17	121	82	74	65	76	80	280	404	734	154	137	230
18	114	83	63	65	76	80	309	421	1010	152	136	217
19	115	80	76	65	74	80	324	426	877	139	132	199
20	124	75	75	65	77	80	248	448	795	139	120	231
21	106	83	83	70	82	78	204	439	672	136	114	250
22	105	84	80	70	86	78	192	481	623	128	117	214
23	102	80	69	70	95	84	235	558	586	106	116	195
24	101	81	70	75	89	84	251	567	555	106	139	194
25	101	80	70	75	93	85	274	555	516	103	147	169
26	101	75	70	75	88	93	299	576	528	99	149	171
27	100	73	70	75	93	121	304	709	510	121	134	193
28	102	78	70	80	95	115	307	709	484	126	141	271
29	113	80	70	80	---	130	394	667	478	181	149	248
30	127	83	70	80	---	104	405	666	459	175	138	262
31	103	---	70	80	---	95	---	538	---	146	144	---
TOTAL	3579	2602	2295	2081	2304	2664	6926	16635	18692	6720	4308	5916
MEAN	115	86.7	74.0	67.1	82.3	85.9	231	537	623	217	139	197
MAX	238	104	83	80	95	130	405	766	1010	531	166	280
MIN	84	73	63	55	74	70	92	395	459	99	114	129
AC-FT	7100	5160	4550	4130	4570	5280	13740	33000	37080	13330	8540	11730

CAL YR 1981 TOTAL 33424 MEAN 91.6 MAX 654 MIN 37 AC-FT 66300
WTR YR 1982 TOTAL 74722 MEAN 205 MAX 1010 MIN 55 AC-FT 148200

09106104 KIEFER EXTENSION GRAND VALLEY CANAL NEAR FRUITA, CO

LOCATION.--Lat 39°13'31", long 108°46'28", in SW¼SW¼ sec.24, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 300 ft (91 m) upstream from small timber bridge, 1,050 ft (320 m) upstream from Golden Hill Canal headgate, 1,100 ft (340 m) north of O Road, and 5.0 mi (8.0 km) north of Fruita.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,595 ft (1,401 m), from topographic map.

REMARKS.--Records good. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in Reed Wash basin. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 153 ft³/s (4.33 m³/s), Sept. 22, 1980, Aug. 28, 1982; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	135	.00	.00	.00	.00	.00	128	145	141	134	138
2	136	131	.00	.00	.00	.00	.00	126	145	142	135	141
3	137	123	.00	.00	.00	.00	.00	126	149	142	138	140
4	133	122	.00	.00	.00	.00	.00	132	149	143	139	140
5	132	124	.00	.00	.00	.00	.00	136	148	145	143	142
6	132	124	.00	.00	.00	.00	.00	138	147	145	145	143
7	134	69	.00	.00	.00	.00	.00	134	147	145	140	150
8	136	34	.00	.00	.00	.00	48	131	150	144	142	151
9	135	.00	.00	.00	.00	.00	95	132	147	142	145	148
10	134	.00	.00	.00	.00	.00	99	135	144	140	144	148
11	135	.00	.00	.00	.00	.00	99	134	149	144	140	146
12	135	.00	.00	.00	.00	.00	101	134	149	144	132	141
13	133	.00	.00	.00	.00	.00	103	144	149	136	140	144
14	134	.00	.00	.00	.00	.00	107	143	145	131	142	142
15	136	.00	103	.00	.00	.00	105	143	136	137	144	141
16	134	.00	118	.00	.00	.00	102	144	133	144	144	143
17	137	.00	119	.00	.00	.00	103	139	136	148	137	145
18	138	.00	114	.00	.00	.00	102	133	143	146	139	146
19	138	.00	116	.00	.00	.00	106	133	149	149	142	143
20	139	.00	117	.00	.00	.00	112	135	152	146	138	141
21	145	.00	115	.00	.00	.00	116	140	150	144	143	136
22	149	.00	63	.00	.00	.00	109	140	148	139	142	133
23	141	.00	.00	.00	.00	.00	108	139	151	140	142	135
24	138	.00	.00	.00	.00	.00	113	142	150	144	145	135
25	137	.00	.00	.00	.00	.00	115	138	142	150	147	133
26	142	.00	.00	.00	.00	.00	113	139	140	149	152	134
27	140	.00	.00	.00	.00	.00	113	143	140	142	152	134
28	140	.00	.00	.00	.00	.00	115	145	139	137	153	125
29	137	.00	.00	.00	---	.00	119	148	137	138	150	123
30	135	.00	.00	.00	---	.00	124	149	140	135	152	124
31	134	---	.00	.00	---	.00	---	148	---	134	146	---
TOTAL	4243	862.00	865.00	.00	.00	.00	2427.00	4271	4349	4406	4427	4185
MEAN	137	28.7	27.9	.000	.000	.000	80.9	138	145	142	143	140
MAX	149	135	119	.00	.00	.00	124	149	152	150	153	151
MIN	132	.00	.00	.00	.00	.00	.00	126	133	131	132	123
AC-FT	8420	1710	1720	.00	.00	.00	4810	8470	8630	8740	8780	8300

CAL YR 1981 TOTAL 32458.00 MEAN 88.9 MAX 149 MIN .00 AC-FT 64380
WTR YR 1982 TOTAL 30035.00 MEAN 82.3 MAX 153 MIN .00 AC-FT 59570

NOTE.--NO GAGE-HEIGHT RECORD JAN. 12 TO MAR. 29.

09106108 KIEFER EXTENSION GRAND VALLEY CANAL NEAR LOMA, CO

LOCATION.--Lat 39°13'40", long 108°49'06", in NW¼SE¼ sec.21, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 600 ft (180 m) south of 'O½' Road, 1,800 ft (550 m) west of 13 Road, and 2.5 mi (4.0 km) north of Loma.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,585 ft (1,398 m), from topographic map.

REMARKS.--Records good except for periods of no gage height record, which are fair. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in lower Reed Wash basin. Surplus flows are wasted into Reed Wash. Entire flow regulated by diversion gages. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 88 ft^3/s (2.49 m^3/s), June 7, 8, July 25 1982; no flow part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	69	.00	.00	.00	.00	.00	73	84	82	82	82
2	81	67	.00	.00	.00	.00	.00	72	85	81	82	83
3	81	64	.00	.00	.00	.00	.00	72	86	78	82	81
4	78	64	.00	.00	.00	.00	.00	76	84	79	78	80
5	77	63	.00	.00	.00	.00	.00	78	85	80	79	82
6	75	63	.00	.00	.00	.00	.00	79	86	79	83	81
7	74	34	.00	.00	.00	.00	.00	77	88	80	81	81
8	74	5.4	.00	.00	.00	.00	31	75	88	79	79	80
9	73	.00	.00	.00	.00	.00	55	76	83	78	81	78
10	73	.00	.00	.00	.00	.00	57	78	80	76	83	79
11	75	.00	.00	.00	.00	.00	57	77	82	77	80	77
12	74	.00	.00	.00	.00	.00	58	77	83	79	77	75
13	70	.00	.00	.00	.00	.00	59	83	81	80	80	75
14	69	.00	.00	.00	.00	.00	61	82	80	81	79	74
15	69	.00	15	.00	.00	.00	60	78	76	83	78	72
16	61	.00	35	.00	.00	.00	59	81	75	83	77	68
17	62	.00	52	.00	.00	.00	59	83	78	84	75	68
18	62	.00	46	.00	.00	.00	59	82	80	83	78	68
19	63	.00	51	.00	.00	.00	61	80	82	86	79	67
20	64	.00	55	.00	.00	.00	65	81	84	85	76	66
21	68	.00	54	.00	.00	.00	67	84	83	85	76	62
22	72	.00	27	.00	.00	.00	63	85	84	83	76	61
23	71	.00	.00	.00	.00	.00	62	84	86	85	77	60
24	68	.00	.00	.00	.00	.00	65	84	85	87	79	61
25	65	.00	.00	.00	.00	.00	66	82	83	88	77	62
26	69	.00	.00	.00	.00	.00	65	82	85	87	80	63
27	69	.00	.00	.00	.00	.00	65	83	84	83	81	62
28	69	.00	.00	.00	.00	.00	66	82	81	82	81	59
29	69	.00	.00	.00	---	.00	68	82	81	82	80	59
30	69	.00	.00	.00	---	.00	71	82	83	83	80	60
31	70	---	.00	.00	---	.00	---	85	---	84	80	---
TOTAL	2195	429.40	335.00	.00	.00	.00	1399.00	2475	2485	2542	2456	2126
MEAN	70.8	14.3	10.8	.000	.000	.000	46.6	79.8	82.8	82.0	79.2	70.9
MAX	81	69	55	.00	.00	.00	71	85	88	88	83	83
MIN	61	.00	.00	.00	.00	.00	.00	72	75	76	75	59
AC-FT	4350	852	664	.00	.00	.00	2770	4910	4930	5040	4870	4220

CAL YR 1981 TOTAL 17257.40 MEAN 47.3 MAX 87 MIN .00 AC-FT 34230
WTR YR 1982 TOTAL 16442.40 MEAN 45.0 MAX 88 MIN .00 AC-FT 32610

NOTE.--NO GAGE-HEIGHT RECORD NOV. 9 TO DEC. 14, APR. 9 TO MAY 14.

09108500 TAYLOR PARK RESERVOIR AT TAYLOR PARK, CO

LOCATION.--Lat 38°49'07", long 106°36'24", Gunnison County, Hydrologic Unit 14020001, at dam on Taylor River just downstream from Taylor Park, 16 mi (26 km) northeast of Almont.

DRAINAGE AREA.--254 mi^2 (658 km^2).

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

REVISED RECORDS.--WSP 1089: 1940(M), 1942(M), 1945-46. WSP 1924: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,187 ft (2,800.2 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

REMARKS.--Reservoir is formed by an earth and rockfill dam. Dam completed by Water and Power Resources Service in September 1937. Capacity of reservoir, 106,200 acre-ft (131 hm^3) between elevations 9,187 ft (2,800.2 m), bottom of outlet gates, and 9,330 ft (3,843.8 m), crest of spillway. No dead storage. Water used for irrigation in Uncompahgre Valley. Figures given are usable contents.

COOPERATION.--Records furnished by Uncompahgre Valley Water Users Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 111,000 acre-ft (137 hm^3) July 1, 1957, elevation, 9,332.35 ft (2,844.500 m); minimum after first filling, 8,780 acre-ft (10.8 hm^3) Oct. 19, 20, 1956, elevation, 9,240.70 ft (2,816.565 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 90,800 acre-ft (112 hm^3) Aug. 10, 11, elevation, 9,322.10 ft (2,838.023 m); minimum 23,400 acre-ft (28.9 hm^3), Apr. 28, elevation, 9,268.10 ft (2,824.917 m).

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	9,927.90	52,400	-
Oct. 31.	9,295.40	49,200	-3,200
Nov. 30.	9,295.70	49,500	+300
Dec. 31.	9,293.10	46,400	-3,100
CAL YR 1981		-	-10,400
Jan. 31.	9,290.80	43,700	-2,700
Feb. 28.	9,288.00	40,600	-3,100
Mar. 31.	9,279.80	32,700	-7,900
Apr. 30.	9,268.40	23,600	-9,100
May 31.	9,279.90	32,700	+9,100
June 30.	9,310.30	70,400	+37,700
July 31.	9,321.20	89,100	+18,700
Aug. 31.	9,321.70	90,100	+1,000
Sept. 30.	9,318.80	84,800	-5,300
WTR YR 1982			+32,400

09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO

LOCATION.--Lat 38°49'06", long 106°36'31", Gunnison County, Hydrologic Unit 14020001, on left bank 1,000 ft (300 m) downstream from Taylor Park Reservoir Dam, 3.4 mi (5.5 km) upstream from Lottis Creek, and 17 mi (27 km) northeast of Almont.

DRAINAGE AREA.--254 mi^2 (658 km^2).

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,169.67 ft (2,794.915 m) National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 11, 1952, at site 1,600 ft (490 m) downstream at datum 1.00 ft (0.305 m) lower. Oct. 15, 1946, to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

REMARKS.--Records good, except those for periods of no gage-height record, which are fair. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek above reservoir. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1930-34), 156 ft^3/s (4.418 m^3/s), 113,000 acre-ft/yr (139 hm^3/yr); 44 years (water years 1939-82), 191 ft^3/s (5.409 m^3/s), 138,400 acre-ft/yr (171 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft^3/s (64.3 m^3/s) July 1, 1957, gage height, 7.56 ft (2.304 m); no flow May 1 to July 3, 1940, May 7-22, 1942, May 5-21, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 422 ft^3/s (12.0 m^3/s) at 0100 Sept. 21, gage height, 4.42 ft (1.347 m); minimum daily, 46 ft^3/s (1.30 m^3/s) Nov. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	59	113	111	109	109	270	259	186	153	178	136
2	259	60	113	111	109	109	270	255	186	140	186	141
3	252	60	113	111	109	109	268	255	186	135	189	148
4	250	54	113	111	109	109	267	256	186	142	187	141
5	259	46	113	111	109	109	267	256	186	139	183	151
6	249	46	113	111	109	109	265	256	186	144	184	146
7	250	47	113	111	109	109	265	254	186	152	185	134
8	259	47	113	111	109	109	263	255	186	144	181	153
9	258	47	113	111	109	109	262	257	186	143	199	161
10	243	48	113	111	109	109	260	256	186	150	223	166
11	247	49	113	111	109	109	260	256	186	160	251	158
12	230	49	113	111	109	109	266	242	186	154	311	180
13	174	49	113	111	109	109	279	237	186	153	365	234
14	123	49	113	111	109	109	275	237	186	169	375	278
15	82	49	113	111	109	109	273	235	186	162	372	307
16	50	49	113	111	109	109	272	235	186	164	368	364
17	53	49	113	111	109	160	272	233	186	178	323	401
18	55	49	113	111	109	205	270	235	186	186	289	407
19	55	49	113	111	109	255	270	242	186	166	237	408
20	55	71	113	109	109	275	268	252	186	169	171	409
21	55	111	113	109	109	275	267	217	186	180	142	422
22	56	113	111	109	109	275	267	183	186	182	140	418
23	57	113	111	109	109	275	266	182	186	181	146	406
24	57	113	111	109	109	275	267	181	186	161	137	404
25	57	113	111	109	109	275	265	186	186	150	143	400
26	58	113	111	109	109	275	265	186	186	181	142	410
27	58	113	111	109	109	275	263	186	186	189	141	410
28	59	113	111	109	109	275	262	186	170	187	146	336
29	59	113	111	109	---	275	262	186	150	176	137	277
30	59	113	111	109	---	275	260	186	150	179	145	273
31	59	---	111	109	---	272	---	186	---	186	149	---
TOTAL	4290	2154	3483	3417	3052	5661	8006	7028	5492	5055	6525	8379
MEAN	138	71.8	112	110	109	183	267	227	183	163	210	279
MAX	259	113	113	111	109	275	279	259	186	189	375	422
MIN	50	46	111	109	109	109	260	181	150	135	137	134
AC-FT	8510	4270	6910	6780	6050	11230	15880	13940	10890	10030	12940	16620

CAL YR 1981 TOTAL 48580 MEAN 133 MAX 260 MIN 46 AC-FT 96360
WTR YR 1982 TOTAL 62542 MEAN 171 MAX 422 MIN 46 AC-FT 124100

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO MAR. 31, MAY 25 TO JUNE 30.

09110000 TAYLOR RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'41", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 15 ft (5 m) downstream from bridge on State Highway 306, and 800 ft (240 m) upstream from confluence with East River.

DRAINAGE AREA.--477 mi² (1,235 km²).

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1911. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,010.76 ft (2,441.680 m), National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow partly regulated since September 1937 by Taylor Park Reservoir (station 09108500), 24 mi (39 km) above station. Diversions for irrigation of about 360 acres (1.46 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--72 years, 333 ft³/s (9.431 m³/s), 241,300 acre-ft/yr (298 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,760 ft³/s (106 m³/s) June 9, 1920, gage height, 5.00 ft (1.524 m), from rating curve extended above 2,300 ft³/s (65 m³/s); maximum gage height, 5.32 ft (1.622 m) July 1, 1957; minimum discharge observed before storage began in Taylor Park Reservoir, 50 ft³/s (1.42 m³/s) for several days in August 1913, gage height, 1.2 ft (0.366 m); minimum daily, 24 ft³/s (0.68 m³/s) Mar. 12, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 750 ft³/s (21.2 m³/s) at 2400 June 18, gage height, 2.91 ft (0.887 m); minimum daily, 86 ft³/s (2.44 m³/s) Nov. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	103	130	130	140	150	315	485	634	546	285	259
2	267	105	130	130	140	160	307	509	632	506	280	252
3	280	105	135	130	130	160	299	552	646	461	296	249
4	275	103	130	130	140	160	296	543	630	443	282	252
5	273	92	130	130	130	150	296	534	663	422	274	259
6	268	91	130	130	150	140	292	467	668	409	269	249
7	266	92	135	130	130	150	292	444	635	404	271	223
8	268	90	135	130	130	150	292	441	651	392	262	239
9	268	88	130	130	140	150	293	441	659	392	269	256
10	264	87	130	130	140	150	292	440	679	383	302	263
11	263	92	130	130	130	150	295	432	677	379	326	273
12	251	93	130	130	130	160	315	425	680	372	416	319
13	204	91	130	130	140	150	317	414	693	344	520	356
14	169	89	130	130	140	150	329	404	684	341	545	406
15	145	89	130	140	140	150	338	398	671	346	515	426
16	119	88	130	140	130	165	341	395	643	340	520	483
17	107	86	130	140	130	216	337	394	671	337	485	525
18	108	88	130	140	130	269	340	405	719	337	439	517
19	107	98	130	140	130	307	341	419	708	314	381	520
20	106	121	135	140	130	327	333	415	651	294	303	535
21	105	130	140	140	140	327	327	411	624	287	249	549
22	104	140	140	140	140	327	326	421	623	284	239	530
23	103	140	130	130	140	327	334	439	620	289	239	504
24	104	135	130	140	140	327	336	466	628	284	311	501
25	103	140	130	140	140	327	337	473	636	264	307	495
26	102	135	140	140	140	327	354	481	621	301	299	494
27	104	130	130	140	150	327	361	547	613	316	270	490
28	105	130	140	130	150	327	380	565	614	335	266	450
29	105	130	140	140	---	327	418	622	574	317	256	348
30	105	135	140	140	---	327	449	656	552	327	259	340
31	101	---	130	140	---	327	---	639	---	303	263	---
TOTAL	5415	3236	4110	4180	3840	7161	9882	14677	19399	11069	10198	11562
MEAN	175	108	133	135	137	231	329	473	647	357	329	385
MAX	280	140	140	140	150	327	449	656	719	546	545	549
MIN	101	86	130	130	130	140	292	394	552	264	239	223
AC-FT	10740	6420	8150	8290	7620	14200	19600	29110	38480	21960	20230	22930

CAL YR 1981 TOTAL 70503 MEAN 193 MAX 409 MIN 86 AC-FT 139800
WTR YR 1982 TOTAL 104729 MEAN 287 MAX 719 MIN 86 AC-FT 207700

NOTE.--NO GAGE-HEIGHT RECORD NOV. 20 TO APR. 6.

09112500 EAST RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'51", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 200 ft (61 m) upstream from bridge on State Highway 135, and 400 ft (120 m) upstream from confluence with Taylor River.

DRAINAGE AREA.--289 mi² (749 km²).

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911. WSP 1733: 1952. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,006.29 ft (2,440.317 m), National Geodetic Vertical Datum of 1929. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft (61 m) downstream at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 7,400 acres (29.9 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--60 years (water years 1911-22, 1935-82), 335 ft³/s (9.487 m³/s), 242,700 acre-ft/yr (299 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,500 ft³/s (184 m³/s) June 15, 1921, gage height, 6.6 ft (2.01 m), site and datum then in use, from rating curve extended above 3,000 ft³/s (85 m³/s); minimum daily, 19 ft³/s (0.54 m³/s) Aug. 13, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 ft³/s (52.7 m³/s) at 1100 June 18, gage height, 5.75 ft (1.735 m), only peak above base of 1,600 ft³/s (45 m³/s); minimum daily, 45 ft³/s (1.27 m³/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	72	73	66	62	52	57	666	1280	1460	429	189
2	60	73	70	64	64	54	58	872	1260	1370	405	183
3	66	77	72	62	62	58	55	1070	1300	1240	389	177
4	66	78	74	60	58	55	58	1190	1240	1170	346	169
5	67	86	78	60	54	52	57	1310	1340	1090	322	172
6	67	87	74	60	52	49	60	927	1370	966	312	175
7	68	89	73	58	45	56	60	771	1290	889	305	167
8	69	89	70	54	47	57	58	733	1360	826	298	163
9	71	85	74	54	48	56	60	716	1390	840	291	160
10	71	85	74	56	49	54	60	685	1480	791	299	158
11	71	87	78	58	50	56	61	666	1460	772	306	163
12	72	88	78	58	50	57	78	640	1550	698	302	194
13	72	86	76	58	50	55	108	599	1570	673	298	197
14	72	91	69	56	50	56	127	526	1460	666	322	205
15	78	89	68	56	52	56	138	464	1460	673	282	192
16	89	87	70	56	52	55	145	448	1490	616	260	207
17	88	84	68	58	52	56	149	482	1620	593	255	211
18	85	87	65	60	50	54	166	557	1780	582	268	218
19	80	86	66	60	48	55	182	591	1690	564	249	213
20	79	79	68	58	50	52	188	601	1460	542	243	278
21	79	86	74	56	50	50	164	668	1440	501	247	318
22	76	89	72	54	54	54	159	824	1500	485	266	270
23	74	86	68	56	54	51	180	905	1550	478	258	250
24	72	81	66	56	54	52	184	1050	1550	503	272	235
25	71	82	64	58	54	54	210	996	1550	511	277	221
26	69	75	64	60	54	56	248	907	1490	464	287	218
27	72	71	64	62	52	57	262	1150	1460	508	244	226
28	72	74	68	60	52	59	286	1200	1520	579	244	235
29	73	78	66	60	---	60	386	1290	1540	548	225	226
30	73	78	66	60	---	55	464	1350	1450	551	205	230
31	73	---	64	60	---	54	---	1260	---	466	201	---
TOTAL	2254	2485	2174	1814	1469	1697	4468	26114	43900	22615	8907	6220
MEAN	72.7	82.8	70.1	58.5	52.5	54.7	149	842	1463	730	287	207
MAX	89	91	78	66	64	60	464	1350	1780	1460	429	318
MIN	59	71	64	54	45	49	55	448	1240	464	201	158
AC-FT	4470	4930	4310	3600	2910	3370	8860	51800	87080	44860	17670	12340

CAL YR 1981 TOTAL 58032 MEAN 159 MAX 1140 MIN 47 AC-FT 115100
WTR YR 1982 TOTAL 124117 MEAN 340 MAX 1780 MIN 45 AC-FT 246200

09114500 GUNNISON RIVER NEAR GUNNISON, CO

LOCATION.--Lat 38°32'31", long 106°56'57", in NW¼NW¼ sec.2, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020002, on right bank 0.7 mi (1.1 km) downstream from Antelope Creek and 1.2 mi (1.9 km) west of Gunnison.

DRAINAGE AREA.--1,012 mi² (2,621 km²).

PERIOD OF RECORD.--October 1910 to December 1928, October 1944 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911, 1916.

GAGE.--Water-stage recorder. Altitude of gage is 7,655 ft (2,333 m), from topographic map. Nov. 25, 1910, to Dec. 31, 1928, nonrecording gages (supplementary water-stage recorder Apr. 28, 1916, to June 17, 1918) at bridge about 0.6 mi (1.0 km) downstream at various datums. Oct. 1, 1944, to July 28, 1970, water-stage recorder at sites 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500), 37 mi (60 km) above station. Diversions for irrigation of about 22,000 acres (89.0 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--56 years (water years 1911-28, 1945-82), 752 ft³/s (21.30 m³/s) 544,800 acre-ft/yr (672 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 11,400 ft³/s (323 m³/s) June 13, 1918, gage height, 4.05 ft (1.234 m), site and datum then in use, from rating curve extended above 5,000 ft³/s (140 m³/s); minimum daily, 80 ft³/s (2.27 m³/s) Dec. 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,060 ft³/s (36.7 m³/s) at 2300 June 18, gage height, 3.65 ft (1.112 m); minimum daily, 171 ft³/s (4.84 m³/s) Oct. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	304	181	240	280	230	214	414	1430	2150	2260	825	535
2	311	194	240	275	220	220	419	1640	2150	2110	798	503
3	362	194	255	273	210	219	400	1960	2150	1860	807	485
4	363	194	263	255	220	205	430	2010	2060	1760	771	476
5	360	194	280	289	215	201	420	2080	2150	1640	726	501
6	367	194	277	285	200	194	425	1520	2200	1480	735	514
7	364	194	268	269	200	202	429	1320	2080	1340	726	479
8	367	194	264	250	190	212	422	1270	2170	1250	699	477
9	374	192	274	240	180	216	438	1250	2190	1250	672	498
10	371	187	266	250	190	206	430	1210	2290	1200	699	477
11	370	196	269	250	190	208	438	1210	2310	1170	715	493
12	364	192	279	240	200	232	524	1190	2400	1100	777	612
13	314	201	270	230	200	226	566	1170	2460	1040	870	663
14	272	204	269	230	190	226	609	1070	2370	1040	923	735
15	255	204	287	230	190	239	636	960	2330	1010	860	699
16	233	194	268	220	200	241	645	960	2330	970	841	744
17	219	192	266	220	210	248	645	992	2570	960	833	782
18	218	192	243	230	200	293	681	1080	2880	960	802	793
19	204	182	265	220	220	350	699	1140	2820	930	736	797
20	200	182	286	210	220	363	663	1140	2440	870	674	893
21	190	232	271	200	230	390	609	1200	2350	843	639	964
22	181	263	261	200	240	416	618	1270	2500	834	692	884
23	175	256	255	200	240	399	663	1390	2550	825	684	829
24	175	250	244	210	250	410	699	1700	2550	834	751	808
25	175	256	250	210	256	424	762	1670	2550	834	752	794
26	171	238	260	220	254	434	834	1640	2440	825	761	792
27	171	244	280	240	232	430	852	2030	2420	930	688	804
28	173	262	295	240	228	443	930	2040	2530	1140	641	778
29	175	262	294	230	---	434	1100	2150	2480	1060	611	681
30	180	250	290	230	---	413	1190	2280	2310	1000	586	653
31	175	---	280	230	---	398	---	2150	---	880	570	---
TOTAL	8133	6370	8309	7356	6005	9306	18590	46122	71180	36205	22864	20143
MEAN	262	212	268	237	214	300	620	1488	2373	1168	738	671
MAX	374	263	295	289	256	443	1190	2280	2880	2260	923	964
MIN	171	181	240	200	180	194	400	960	2060	825	570	476
AC-FT	16130	12630	16480	14590	11910	18460	36870	91480	141200	71810	45350	39950

CAL YR 1981 TOTAL 131319 MEAN 360 MAX 1550 MIN 154 AC-FT 260500
WTR YR 1982 TOTAL 260583 MEAN 714 MAX 2880 MIN 171 AC-FT 516900

09118450 COCHETOPA CREEK BELOW ROCK CREEK, NEAR PARLIN, CO

LOCATION.--Lat 38°20'08", long 106°46'18", in SW¼NE¼ sec.17, T.47 N., R.2 E. Saguache County, Hydrologic Unit 14020003, on left bank 0.75 mi (1.2 km) downstream from Rock Creek and 12 mi (19 km) southeast of Parlin.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--October 1981 to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 8,470 ft (2,582 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Diversions for irrigation of hay meadows above station. Transmountain diversion by Tarbell ditch exports water above station to Saguache Creek, since 1913. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 138 ft³/s (3.91 m³/s) Aug. 26, 1982, gage height, 2.61 ft (0.796 m) maximum gage height, 2.89 ft (0.881 m) Dec. 18, 1982 (backwater from ice); minimum daily discharge, 8.4 ft³/s (0.24 m³/s) Feb. 7, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 138 ft³/s (3.91 m³/s) at 0700 Aug. 26, gage height, 2.61 ft (0.796 m), maximum gage height, 2.89 ft (0.881 m) Dec. 18 (backwater from ice); minimum daily discharge, 8.4 ft³/s (0.24 m³/s) Feb. 7, 1982.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	24	9.8	11	13	12	16	51	46	39	35	92
2	15	25	10	11	13	13	15	55	50	35	33	85
3	18	23	11	10	12	12	16	60	50	43	53	80
4	19	23	11	11	12	12	18	63	52	47	49	77
5	19	23	11	11	11	11	22	61	51	46	38	83
6	22	22	11	11	10	11	19	51	51	38	36	84
7	22	23	10	10	8.4	11	19	43	50	33	36	79
8	21	24	9.6	10	8.8	11	20	39	46	32	36	83
9	21	23	10	10	9.0	11	21	40	46	31	37	85
10	20	22	11	11	9.2	12	27	38	51	28	35	82
11	20	20	10	11	9.0	12	38	30	55	24	38	84
12	20	19	10	11	9.0	13	76	35	56	23	38	112
13	20	18	9.8	12	9.0	13	68	42	66	24	45	117
14	20	18	10	11	9.0	13	66	47	62	30	47	102
15	22	18	10	11	9.0	12	66	47	53	31	41	96
16	29	17	10	12	9.6	12	58	42	51	31	38	92
17	25	17	9.8	12	9.8	12	51	33	46	31	39	91
18	23	15	10	11	10	12	54	32	47	38	49	95
19	23	14	11	11	10	13	50	29	50	36	53	103
20	22	14	11	10	11	13	41	26	53	32	56	105
21	22	14	10	10	11	13	41	25	49	36	66	106
22	22	14	10	10	12	13	37	26	47	39	75	99
23	21	13	9.8	10	12	12	36	28	44	35	82	94
24	21	13	9.8	11	12	12	34	31	42	33	112	90
25	21	13	9.8	11	11	13	37	33	41	33	127	88
26	20	12	10	12	11	13	40	35	40	29	136	88
27	21	12	11	13	12	13	38	37	39	29	123	86
28	20	12	11	12	12	14	41	44	40	43	110	84
29	20	12	11	12	---	15	49	40	39	45	117	83
30	20	11	11	12	---	15	48	43	39	51	108	80
31	23	---	11	12	---	15	---	46	---	47	102	---
TOTAL	647	528	320.4	343	294.8	389	1162	1252	1452	1092	1990	2725
MEAN	20.9	17.6	10.3	11.1	10.5	12.5	38.7	40.4	48.4	35.2	64.2	90.8
MAX	29	25	11	13	13	15	76	63	66	51	136	117
MIN	15	11	9.6	10	8.4	11	15	25	39	23	33	77
AC-FT	1280	1050	636	680	585	772	2300	2480	2880	2170	3950	5410

WTR YR 1982 TOTAL 12195.2 MEAN 33.4 MAX 136 MIN 8.4 AC-FT 24190

NOTE.--NO GAGE-HEIGHT RECORD DEC. 27 TO FEB. 2.

09119000 TOMICHI CREEK AT GUNNISON, CO

LOCATION.--Lat 38°31'18", long 106°56'25", in NE¼SW¼ sec.11, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020003, on right bank 300 ft (91 m) downstream from highway bridge, 1.8 mi (2.9 km) southwest of Post Office in Gunnison, and 2.0 mi (3.2 km) upstream from mouth.

DRAINAGE AREA.--1,061 mi^2 (2,748 km^2).

PERIOD OF RECORD.--November and December 1910 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharges only for some periods, published in WSP 1313. Published as "near Gunnison" 1910.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,628.58 ft (2,325.191 m), National Geodetic Vertical Datum of 1929. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft (91 m) upstream at different datum. Apr. 20, 1938, to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for period of no gage height record, which are poor. Diversions for irrigation of about 24,000 acres (97.1 km^2) above station. Water diverted above station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914 (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--45 years (water years 1938-82), 164 ft^3/s (4.644 m^3/s), 118,800 acre-ft/yr (146 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft^3/s (53.8 m^3/s) June 8, 1957, gage height, 4.10 ft (1.250 m); maximum gage height, 4.18 ft (1.274 m) May 23, 1970; minimum daily discharge, 2.6 ft^3/s (0.074 m^3/s) Sept. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 704 ft^3/s (19.9 m^3/s) at 1500 June 19, gage height, 3.25 ft (0.991 m); minimum daily, 36 ft^3/s (1.02 m^3/s) Feb. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	87	79	47	39	82	130	200	497	323	207	217
2	51	90	65	44	39	88	132	233	484	303	195	201
3	59	93	61	44	39	100	132	275	474	272	192	185
4	63	94	71	45	39	95	133	291	457	259	192	176
5	63	95	72	46	38	92	140	316	463	242	170	182
6	66	94	78	46	38	86	140	314	472	221	176	192
7	65	96	84	46	36	82	133	244	471	223	168	179
8	69	100	88	44	36	80	114	206	463	217	168	185
9	69	98	86	42	38	88	109	184	442	201	162	198
10	76	91	85	42	40	95	104	163	462	198	159	192
11	70	84	83	46	41	110	109	152	500	188	156	195
12	66	83	80	47	42	130	159	152	500	170	154	260
13	69	86	78	47	42	120	228	182	523	133	159	316
14	69	92	74	47	44	120	222	217	558	115	195	320
15	69	94	72	46	46	120	231	194	537	113	185	288
16	77	94	72	45	47	120	237	162	502	115	168	266
17	82	90	70	46	47	118	214	137	504	113	159	251
18	76	87	70	46	49	115	212	123	567	111	154	250
19	74	71	70	46	52	115	195	115	671	128	165	278
20	80	69	70	45	54	110	173	110	604	128	170	293
21	78	78	68	43	58	100	150	108	520	123	170	305
22	82	90	62	42	64	100	152	107	478	128	198	278
23	80	110	56	43	70	100	151	142	467	131	207	263
24	82	94	52	44	70	110	147	187	480	146	264	243
25	83	93	49	45	72	120	142	229	442	151	324	234
26	81	82	49	47	70	130	143	259	421	148	329	231
27	83	77	50	47	74	132	147	281	398	143	324	227
28	86	81	50	45	78	130	147	353	375	198	300	221
29	88	84	50	42	---	130	173	403	353	245	283	216
30	87	86	52	41	---	135	183	462	322	268	271	209
31	89	---	50	40	---	130	---	513	---	245	245	---
TOTAL	2284	2663	2096	1386	1402	3383	4782	7014	14407	5699	6369	7051
MEAN	73.7	88.8	67.6	44.7	50.1	109	159	226	480	184	205	235
MAX	89	110	88	47	78	135	237	513	671	323	329	320
MIN	51	69	49	40	36	80	104	107	322	111	154	176
AC-FT	4530	5280	4160	2750	2780	6710	9490	13910	28580	11300	12630	13990

CAL YR 1981 TOTAL 24502.4 MEAN 67.1 MAX 167 MIN 7.2 AC-FT 48600
WTR YR 1982 TOTAL 58536.0 MEAN 160 MAX 671 MIN 36 AC-FT 116100

NOTE.--NO GAGE-HEIGHT RECORD DEC. 5 TO APR. 6.

09123400 LAKE FORK BELOW MILL GULCH, NEAR LAKE CITY, CO

LOCATION.--Lat 37°54'23", long 107°23'03", Hinsdale County, Hydrologic Unit 14020002, on left bank 2,000 ft (610 m) downstream from Mill Gulch, 1,000 ft (305 m) upstream from Bent Creek and 8.5 mi (13.7 km) southwest of Lake City.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--October 1981 to September 1982.

GAGE.--Water-stage recorder. Altitude of gage is 9,400 ft (2,870 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. No regulation or diversions above station. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 713 ft^3/s (20.2 m^3/s) June 25, 1982, gage height, 6.09 ft (1.856 m), maximum gage height, 8.47 ft (2.582 m) Apr. 8, 1982 (backwater from ice); minimum daily discharge, 6.5 ft^3/s (0.18 m^3/s) Mar. 22, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 713 ft^3/s (20.2 m^3/s) at 0400 June 25, gage height, 6.09 ft (1.856 m), maximum gage height, 8.47 ft (2.582 m) Apr. 8, 1982 (backwater from ice); minimum daily discharge, 6.5 ft^3/s (0.18 m^3/s) Mar. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	26	16	11	9.0	11	8.1	76	310	522	128	136
2	30	29	15	11	9.0	12	8.0	115	318	455	136	124
3	30	28	15	10	6.5	13	8.0	136	323	385	136	115
4	32	27	15	10	8.5	12	9.0	115	300	341	121	110
5	34	28	15	10	8.0	10	9.0	104	292	300	110	121
6	34	28	14	10	7.5	9.5	9.0	86	256	278	104	103
7	34	30	14	10	7.5	9.0	9.6	76	228	256	103	99
8	34	29	14	9.5	7.5	8.5	10	72	260	244	99	103
9	34	25	14	9.5	7.0	8.5	10	70	282	260	117	103
10	34	22	14	10	7.0	9.0	11	73	328	244	106	99
11	36	22	14	10	7.0	9.0	12	76	375	244	100	103
12	38	23	13	10	7.0	11	14	73	370	228	99	106
13	40	23	13	10	7.0	10	18	68	346	224	103	113
14	40	22	13	9.5	7.0	9.5	26	62	318	216	141	115
15	42	22	13	9.5	7.0	9.5	32	61	328	213	128	118
16	46	22	13	9.5	7.5	9.0	29	61	328	196	133	115
17	48	20	13	9.5	7.5	8.5	32	67	355	196	128	113
18	46	20	13	9.5	7.5	8.0	39	73	400	196	133	115
19	44	20	13	9.0	8.0	8.0	43	86	346	176	131	108
20	42	19	13	9.0	8.5	7.5	43	86	355	173	182	108
21	40	19	13	8.5	9.0	7.0	44	104	375	157	206	110
22	40	18	12	8.5	9.5	6.5	40	131	450	160	232	103
23	38	18	11	8.5	9.5	7.0	40	154	467	151	341	99
24	38	18	11	8.5	9.5	7.0	38	192	509	144	433	96
25	37	18	10	8.5	9.5	7.5	37	179	528	141	318	89
26	34	18	10	9.0	9.5	8.0	36	198	467	141	240	87
27	38	18	10	9.5	9.5	8.0	34	240	395	166	236	87
28	37	17	10	9.5	10	7.5	36	228	444	160	300	84
29	36	17	11	9.0	---	8.0	43	240	460	173	216	83
30	36	16	11	9.0	---	8.0	51	318	461	149	176	83
31	29	---	11	9.0	---	8.1	---	287	---	136	154	---
TOTAL	1153	662	397	294.0	229.5	275.1	778.7	3907	10974	7025	5290	3148
MEAN	37.2	22.1	12.8	9.48	8.20	8.87	26.0	126	366	227	171	105
MAX	48	30	16	11	10	13	51	318	528	522	433	136
MIN	29	16	10	8.5	7.0	6.5	8.0	61	228	136	99	83
AC-FT	2290	1310	787	583	455	546	1540	7750	21770	13930	10490	6240

WTR YR 1982 TOTAL 34133.3 MEAN 93.5 MAX 528 MIN 6.5 AC-FT 67700

NOTE.--NO GAGE-HEIGHT RECORD DEC. 24 TO MAR. 30.

09124500 LAKE FORK AT GATEVIEW, CO

LOCATION.--Lat 38°17'56", long 107°13'46", in SE¼NE¼ sec.29, T.47 N., R.3 W., Gunnison County, Hydrologic Unit 14020002, on left bank at old village of Gateview, 25 ft (8 m) downstream from private bridge, 0.2 mi (0.3 km) upstream from Indian Creek, and 6.3 mi (10.1 km) upstream from waterline of Blue Mesa Reservoir at elevation 7,519 ft (2,291.8 m).

DRAINAGE AREA.--334 mi² (865 km²).

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,827.66 ft (2,385.871 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, at datum 2.00 ft (0.610 m) higher, and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good except those for period of no gage-height record and winter period, which are poor. Diversions for irrigation of about 1,600 acres (6.48 km²) above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--45 years, 270 ft³/s (6.599 m³/s) 168,800 acre-ft/yr (208 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s (76.5 m³/s) June 29, 1957, gage height, 4.30 ft (1.311 m); minimum daily, 22 ft³/s (0.62 m³/s) Jan. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) at 0400 June 29, gage height, 2.96 ft (0.902 m), from peak stage indicator, only peak above base of 1,400 ft³/s (40 m³/s); minimum daily, 37 ft³/s (1.05 m³/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	79	56	45	45	60	52	187	739	1160	394	477
2	78	83	55	44	44	65	52	275	781	1120	405	414
3	85	82	56	44	44	62	49	420	814	1030	407	368
4	87	79	58	45	43	60	55	436	810	986	380	335
5	87	76	59	45	42	58	57	420	877	902	344	347
6	88	78	60	45	40	54	56	341	780	778	314	325
7	86	77	60	44	37	52	55	265	698	714	314	296
8	86	79	57	42	38	52	49	227	747	660	300	289
9	86	75	57	43	39	52	49	217	809	681	319	300
10	84	71	54	45	39	56	47	223	939	658	320	293
11	84	70	54	47	39	58	52	238	994	665	317	276
12	96	70	52	47	40	64	76	254	1090	630	299	281
13	97	70	50	47	40	60	101	240	1160	639	306	292
14	98	73	50	44	39	58	115	202	1030	597	333	300
15	101	72	50	43	40	57	138	183	1000	596	347	305
16	114	70	52	43	41	54	142	174	1050	576	361	296
17	103	67	52	44	40	54	133	185	1210	551	345	286
18	99	70	50	44	41	50	136	194	1180	556	325	296
19	96	66	52	42	42	50	137	230	985	528	326	317
20	93	60	52	41	44	50	129	246	845	505	352	309
21	90	63	52	40	47	49	123	290	986	480	395	315
22	90	65	52	40	52	46	117	379	1040	461	472	294
23	88	66	47	41	54	46	118	432	1090	458	665	280
24	91	64	44	43	52	46	112	507	1140	454	1120	269
25	90	62	44	44	52	48	105	517	1190	437	1120	254
26	89	57	44	45	54	52	106	507	1130	447	897	251
27	94	58	45	47	55	50	104	640	1240	471	752	241
28	92	60	46	46	57	52	104	644	1270	484	782	247
29	91	62	47	45	---	54	124	736	1290	498	696	239
30	91	60	48	45	---	54	139	809	1140	469	607	232
31	82	---	48	45	---	54	---	736	---	433	546	---
TOTAL	2817	2084	1603	1365	1240	1677	2832	11354	30054	19624	14860	9024
MEAN	90.9	69.5	51.7	44.0	44.3	54.1	94.4	366	1002	633	479	301
MAX	114	83	60	47	57	65	142	809	1290	1160	1120	477
MIN	78	57	44	40	37	46	47	174	698	433	299	232
AC-FT	5590	4130	3180	2710	2460	3330	5620	22520	59610	38920	29470	17900

CAL YR 1981 TOTAL 48644 MEAN 133 MAX 982 MIN 27 AC-FT 96490
WTR YR 1982 TOTAL 98534 MEAN 270 MAX 1290 MIN 37 AC-FT 195400

NOTE.--NO GAGE-HEIGHT RECORD DEC. 9 TO MAR. 31.

09126000 CIMARRON RIVER NEAR CIMARRON, CO

LOCATION.--Lat 38°15'36", long 107°32'43", in NW¼NE¼ sec.8, T.46 N., R.6 W., Gunnison County, Hydrologic Unit 14020002, on right bank 100 ft (30 m) upstream from Forest Service bridge, 0.6 mi (1.0 km) upstream from headgate on Cimarron ditch, 2.1 mi (3.4 km) downstream from Silver Jack Dam, and 13 mi (21 km) south of Cimarron.

DRAINAGE AREA.--66.6 mi² (172.5 km²).

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,631.48 ft (2,630.875 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1972, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversion above station through Owl Creek ditch into Uncompahgre River basin. Flow regulated by Silver Jack Dam, total capacity, 13,520 acre-ft (16.7 hm³), 2.1 mi (3.4 km) upstream since Dec. 23, 1970. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1955-70), 88.6 ft³/s (2.509 m³/s), 64,190 acre-ft/yr (79.1 hm³/yr), prior to completion of Silver Jack Dam; 12 years (water years 1971-82), 86.1 ft³/s (2.438 m³/s), 62,380 acre-ft/yr (76.9 hm³/yr), subsequent to completion of Silver Jack Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s (50.7 m³/s) June 28, 1957, gage height, 8.32 ft (2.536 m), site and datum then in use; no flow Dec. 24, 1970, to Jan. 9, 1971 (result of storage in Silver Jack Dam); minimum daily prior to construction of Silver Jack Dam, 8.0 ft³/s (0.23 m³/s) Dec. 27, 28, 1962, Jan. 13, 1963; minimum daily, 4.4 ft³/s (0.12 m³/s) Apr. 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 674 ft³/s (19.1 m³/s) at 0100 June 27, gage height, 4.91 ft (1.497 m), minimum daily, 12 ft³/s (0.34 m³/s) Feb. 7.

CORRECTIONS.--The date of the maximum gage height for 1981 was omitted from the report for 1981, it was Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	39	15	15	17	22	18	41	282	513	162	98
2	54	39	16	15	18	24	18	45	286	460	150	100
3	57	39	16	15	18	23	18	53	290	449	143	101
4	55	39	16	15	17	21	19	52	323	426	143	101
5	62	39	16	15	17	20	19	52	378	389	137	101
6	65	39	16	16	15	18	19	39	385	331	133	100
7	64	39	16	15	12	17	18	36	395	305	130	100
8	64	39	16	15	14	17	19	36	396	281	130	102
9	64	38	17	15	13	18	18	38	395	283	118	103
10	63	38	16	15	13	19	18	57	395	275	109	104
11	64	37	16	15	13	21	19	82	399	282	109	105
12	54	38	16	16	13	24	21	81	405	272	103	107
13	44	38	16	16	13	23	22	78	466	267	99	108
14	44	38	15	16	13	22	24	74	473	238	102	108
15	44	38	16	15	13	21	24	73	452	235	102	107
16	45	27	16	15	13	20	24	72	472	224	100	104
17	44	16	16	15	13	19	24	73	502	218	98	100
18	44	16	15	16	13	19	26	74	545	216	98	96
19	42	16	16	16	14	18	26	76	443	213	81	65
20	39	17	16	15	15	17	25	120	406	212	69	100
21	38	16	17	15	16	16	24	163	460	212	70	99
22	38	16	16	15	17	15	25	162	438	193	70	100
23	37	16	15	16	17	15	26	159	454	171	93	100
24	37	16	14	16	18	15	25	193	506	171	114	100
25	38	16	14	15	18	16	27	219	530	171	112	100
26	38	19	14	16	18	17	27	216	541	169	113	100
27	38	17	14	17	19	17	28	221	593	168	113	97
28	38	17	14	17	20	17	33	223	612	165	111	96
29	38	16	14	16	---	18	34	224	586	165	111	96
30	39	16	15	16	---	18	35	230	537	165	103	96
31	39	---	15	16	---	18	---	261	---	162	98	---
TOTAL	1482	834	480	481	430	585	703	3523	13345	8001	3424	2994
MEAN	47.8	27.8	15.5	15.5	15.4	18.9	23.4	114	445	258	110	99.8
MAX	65	39	17	17	20	24	35	261	612	513	162	108
MIN	37	16	14	15	12	15	18	36	282	162	69	65
AC-FT	2940	1650	952	954	853	1160	1390	6990	26470	15870	6790	5940

CAL YR 1981 TOTAL 17568.8 MEAN 48.1 MAX 148 MIN 7.4 AC-FT 34850
WTR YR 1982 TOTAL 36282.0 MEAN 99.4 MAX 612 MIN 12 AC-FT 71970

NOTE.--NO GAGE-HEIGHT RECORD JAN. 7 TO APR. 1.

09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO

LOCATION.--Lat 38°31'45", long 107°38'54", in NE¼NW¼ sec.10, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, on left bank 0.4 mi (0.6 km) downstream from east portal of Gunnison tunnel, 4.7 mi (7.6 km) downstream from Crystal Creek, and 12 mi (19 km) northeast of Montrose.

DRAINAGE AREA.--3,965 mi² (10,269 km²).

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11.

REVISED RECORDS.--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WSP 2124: Drainage area. WDR CO-77-2: 1926, 1941.

GAGE.--Water-stage recorder. Datum of gage is 6,526.06 ft (1,989.143 m) National Geodetic Vertical Datum of 1929. Apr. 9, 1905, to Aug. 20, 1915, nonrecording gage at site 300 ft (91 m) upstream from diversion dam at east portal of Gunnison tunnel at different datum. Aug. 21, 1915, to Jan. 19, 1943, nonrecording gage at site 500 ft (150 m) downstream from diversion dam at east portal of Gunnison tunnel at different datum. Jan. 20, 1943, to Sept. 30, 1956, water-stage recorder at present site at datum 1.0 ft (0.30 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres (304 km²) in Uncompahgre Valley (see table below for figures of diversion), Taylor Park Reservoir (station 09108500), Blue Mesa Reservoir (station 09124600), Morrow Point Reservoir (station 09125400), Crystal Reservoir (station 09127600), diversions for irrigation of about 63,000 acres (255 km²), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through Gunnison tunnel; furnished by Uncompahgre Valley Water Users Association.

AVERAGE DISCHARGE.--79 years, 1,356 ft³/s (38.40 m³/s), 982,400 acre-ft/yr (1,210 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,000 ft³/s (538 m³/s) June 15, 1921, gage height, about 15.8 ft (4.81 m), present datum, from rating curve extended above 14,000 ft³/s (396 m³/s); no flow Sept. 25, 26, 1936, Oct. 8, 1949, Sept. 5, 6, 15, 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,700 ft³/s (48.1 m³/s) at 1400 Feb. 11, gage height, 4.28 ft (1.304 m); minimum daily 65 ft³/s (1.84 m³/s) Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	412	695	757	644	1050	1630	714	271	362	1110	771	530
2	412	387	656	644	1310	1640	690	325	362	1100	755	519
3	412	65	656	644	1320	1650	690	340	362	1080	754	596
4	412	124	656	636	1320	1650	690	381	364	1080	784	654
5	412	178	656	612	1320	1650	690	408	366	1080	863	605
6	412	178	656	614	1320	1650	690	484	366	1010	703	600
7	412	182	656	632	1320	1650	690	520	366	800	631	789
8	462	184	656	652	1450	1400	632	443	308	680	696	967
9	523	184	641	677	1580	1650	588	373	278	642	712	1060
10	524	185	622	682	1610	1650	588	368	361	651	706	1150
11	524	149	595	680	1680	1660	588	362	428	642	663	1200
12	524	148	644	630	1700	1670	513	357	428	653	660	1210
13	524	130	644	695	1700	1670	579	355	424	655	662	1230
14	524	104	626	913	1700	1670	706	355	784	700	620	1230
15	524	120	622	1090	1700	1670	679	355	1020	711	615	1280
16	524	539	640	1110	1700	1670	432	355	1030	722	696	1270
17	524	968	640	1110	1700	1670	345	442	1030	732	738	1220
18	509	826	643	1140	1700	1670	338	480	1030	757	753	1190
19	508	813	644	803	1700	1670	231	480	1040	750	749	1190
20	508	755	644	315	1690	1670	187	506	1040	694	716	1180
21	508	784	644	306	1670	1670	204	520	1040	642	719	1180
22	508	784	644	307	1630	1550	265	520	1080	648	718	1150
23	510	784	644	309	1590	1460	259	523	1100	643	832	1160
24	512	784	644	254	1590	1240	217	528	1100	620	821	1190
25	510	754	644	265	1650	973	222	528	1110	615	926	1170
26	519	772	644	205	1650	922	203	489	1120	645	945	1170
27	618	772	644	288	1650	922	197	468	1130	654	949	1170
28	622	772	644	723	1630	922	223	383	1130	677	935	1180
29	626	772	644	1030	---	802	257	362	1100	707	937	1180
30	664	805	644	1030	---	753	262	362	1100	768	776	1220
31	695	---	644	1030	---	755	---	362	---	798	575	---
TOTAL	15878	14697	20038	20670	43630	44879	13569	13005	22759	23666	23380	31440
MEAN	512	490	646	667	1558	1448	452	420	759	763	754	1048
MAX	695	968	757	1140	1700	1670	714	528	1130	1110	949	1280
MIN	412	65	595	205	1050	753	187	271	278	615	575	519
AC-FT	31490	29150	39750	41000	86540	89020	26910	25800	45140	46940	46370	62360
a	33850	7480	0	6740	595	5550	42000	44300	40100	55800	55800	37900

CAL YR 1981 TOTAL 208467 MEAN 571 MAX 1840 MIN 65 AC-FT 413500
WTR YR 1982 TOTAL 287611 MEAN 788 MAX 1700 MIN 65 AC-FT 570500

a DIVERSIONS IN ACRE-FT, THROUGH GUNNISON TUNNEL, FURNISHED BY UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION.

09128500 SMITH FORK NEAR CRAWFORD, CO

LOCATION.--Lat 38°43'40", long 107°30'22", in SW¼SE¼ sec.24, T.15 S., R.91 W., Delta County, Hydrologic Unit 14020002, on left bank 20 ft (6 m) upstream from Forest Service bridge, 0.4 mi (0.6 km) upstream from Second Creek, 6 mi (10 km) northeast of Crawford, and 6.5 mi (10.5 km) upstream from Iron Creek.

DRAINAGE AREA.--43.7 mi^2 (113.2 km^2).

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1941. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,091 ft (2,161 m), from topographic map. Prior to Nov. 16, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are poor. Diversions for irrigation of a few small hay meadows above station. Saddle Mountain ditch diverts water above station for irrigation of about 800 acres (3.24 km^2) below. One small ditch diverts water from Virginia Creek to Iron Creek drainage. Head and Ferrier ditch imports water from Curecanti Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--47 years, 40.4 ft^3/s (1.144 m^3/s), 29,270 acre-ft/yr (36.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) May 28, 1979, gage height, 6.90 ft (2.103 m); minimum daily discharge determined, 1.8 ft^3/s (0.051 m^3/s) July 30, 31, Aug. 1, 1963, Sept. 5, 6, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 260 ft^3/s (7.4 m^3/s) and maximum (°):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 4	2400	370	10.5	°6.25	1.905	May 28	1230	°388	11.0	6.20	1.890

Minimum daily discharge, 5.0 ft^3/s (0.14 m^3/s) Dec. 7-10, 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	9.9	5.8	6.5	8.0	9.5	15	238	160	78	12	6.4
2	8.0	9.9	5.5	6.5	8.0	9.5	15	295	160	66	11	6.2
3	11	9.9	5.5	6.5	8.0	9.5	14	234	151	57	11	6.0
4	9.3	10	5.5	6.5	8.0	9.0	15	246	148	52	11	6.2
5	10	10	5.5	6.5	7.5	9.0	17	320	145	47	9.6	7.6
6	9.6	10	5.5	6.0	7.5	9.5	15	175	136	41	9.3	7.1
7	9.3	11	5.0	6.0	7.5	10	14	115	115	36	9.3	6.4
8	8.9	11	5.0	6.0	7.5	10	12	92	108	34	9.1	6.9
9	8.3	11	5.0	6.0	7.5	11	12	80	105	32	9.9	7.6
10	9.1	11	5.0	6.5	7.5	11	12	70	103	30	11	8.3
11	9.9	10	5.2	6.5	7.5	10	18	65	100	29	10	11
12	11	10	5.2	6.5	7.5	10	76	61	103	28	12	20
13	12	10	5.5	6.5	8.0	10	90	61	100	29	10	26
14	12	10	5.5	6.5	8.0	10	103	51	90	30	11	26
15	12	10	5.5	6.5	8.0	10	105	45	86	29	9.9	23
16	11	10	5.0	6.5	8.0	10	103	42	78	26	9.1	23
17	10	9.9	5.0	6.5	8.0	10	90	44	82	24	9.1	23
18	9.9	9.6	5.0	6.5	8.5	10	95	45	84	23	9.6	23
19	10	9.1	5.5	6.5	8.5	10	95	51	84	22	8.8	22
20	11	7.8	6.0	6.5	8.5	11	76	61	72	20	10	27
21	10	8.8	6.0	6.5	8.5	11	63	78	63	18	9.6	23
22	10	8.8	5.5	7.0	8.5	11	56	118	68	17	8.5	21
23	10	8.0	5.5	7.0	8.5	11	65	154	76	17	8.0	20
24	10	7.1	5.5	7.0	8.5	11	76	182	74	16	8.3	19
25	11	6.4	6.0	7.0	8.5	12	84	218	72	16	8.8	17
26	10	6.2	6.0	7.0	8.5	14	100	246	66	16	9.9	20
27	10	6.4	6.0	7.0	9.0	14	108	295	63	14	8.3	20
28	11	6.4	6.0	7.0	9.5	15	133	305	66	15	7.8	21
29	10	6.0	6.0	7.5	---	18	157	270	72	20	7.4	21
30	10	6.0	6.0	7.5	---	15	179	234	78	15	7.1	21
31	9.9	---	6.5	8.0	---	15	---	175	---	13	6.9	---
TOTAL	311.8	270.2	171.7	206.5	227.0	346.0	2013	4666	2908	910	293.3	495.7
MEAN	10.1	9.01	5.54	6.66	8.11	11.2	67.1	151	96.9	29.4	9.46	16.5
MAX	12	11	6.5	8.0	9.5	18	179	320	160	78	12	27
MIN	7.6	6.0	5.0	6.0	7.5	9.0	12	42	63	13	6.9	6.0
AC-FT	618	536	341	410	450	686	3990	9260	5770	1800	582	983

CAL YR 1981 TOTAL 7753.3 MEAN 21.2 MAX 259 MIN 4.1 AC-FT 15380
WTR YR 1982 TOTAL 12819.2 MEAN 35.1 MAX 320 MIN 5.0 AC-FT 25430

NOTE.--NO GAGE-HEIGHT RECORD DEC. 16 TO MAR. 23.

09129600 SMITH FORK NEAR LAZEAR, CO

LOCATION.--Lat 38°42'27", long 107°42'35", in SE¼NE¼ sec.31, T.15 S., R.92 W., Delta County, Hydrologic Unit 14020002, on left bank 25 ft (8 m) downstream from bridge, 1.8 mi (2.9 km) upstream from Diamond Joe Gulch, and 6.4 mi (10.3 km) southeast of Lazear.

DRAINAGE AREA.--166 mi² (430 km²).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,830 ft (1,777 m), from topographic map.

REMARKS.--Records good, except those for winter period, which are poor. Natural flow of stream affected by reservoirs, diversions into basin, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 18.5 ft³/s (0.524 m³/s), 13,400 acre-ft/yr (16.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 512 ft³/s (14.5 m³/s) May 23, 1980, gage height, 5.37 ft (1.637 m); minimum daily, 0.10 ft³/s (0.003 m³/s) Aug. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 164 ft³/s (4.64 m³/s) at 1600 May 5, gage height, 4.62 ft (1.408 m); minimum daily, 0.87 ft³/s (0.025 m³/s) Oct. 20-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.6	1.7	2.1	2.2	2.4	2.2	2.4	73	7.7	1.5	2.8
2	1.8	1.4	1.6	2.1	2.1	2.4	2.2	2.4	79	6.9	1.5	2.4
3	1.9	1.3	1.6	1.9	2.1	2.5	2.2	11	77	6.4	1.6	2.4
4	2.0	1.3	1.7	1.8	2.1	2.5	2.2	45	69	6.3	1.6	2.5
5	2.4	1.3	1.7	1.8	2.0	2.5	2.1	83	68	6.4	1.5	3.1
6	2.0	1.3	1.8	2.0	1.6	2.4	2.1	32	62	6.2	1.5	3.8
7	1.5	1.4	1.8	1.7	1.5	2.4	2.1	6.3	54	5.0	1.4	3.8
8	1.7	1.5	1.8	2.0	1.5	2.4	2.1	5.0	45	4.1	1.4	4.1
9	1.5	1.5	1.8	2.0	1.5	2.5	2.1	4.7	43	3.6	1.4	4.6
10	1.5	1.5	1.9	2.0	1.6	2.5	2.1	4.7	42	3.3	1.4	4.9
11	1.6	1.5	2.1	2.0	1.8	2.4	2.1	4.7	42	3.1	1.3	6.6
12	2.1	1.6	2.1	2.0	2.0	2.4	2.2	4.9	41	2.7	1.3	8.0
13	1.9	1.7	2.1	2.0	2.2	2.4	2.2	15	41	2.7	1.3	8.0
14	1.7	1.6	1.9	2.0	2.3	2.4	2.2	6.4	42	2.8	1.3	7.7
15	1.6	1.6	2.1	2.0	2.4	2.4	3.0	4.4	39	2.6	1.3	6.0
16	1.4	1.8	2.1	2.0	2.9	2.4	3.7	4.7	37	2.6	1.1	5.8
17	.92	1.8	1.9	2.0	3.6	2.3	2.7	4.7	35	2.5	1.3	5.9
18	.92	1.8	1.7	2.1	3.6	2.3	2.6	4.9	34	2.5	1.5	5.1
19	.92	2.0	1.9	2.1	3.4	2.3	2.4	4.9	31	2.5	1.4	5.4
20	.87	2.4	2.1	2.2	3.3	2.2	2.4	6.9	30	2.5	1.4	4.8
21	.87	2.4	2.1	2.2	3.2	2.2	2.4	8.4	26	2.4	1.3	3.0
22	.87	2.3	2.1	2.1	3.3	2.2	2.4	7.8	23	2.4	1.2	3.8
23	.87	2.3	1.8	2.0	3.0	2.2	2.4	12	21	2.3	1.2	5.0
24	.87	2.2	1.6	2.0	2.4	2.2	2.4	27	15	2.1	1.2	4.7
25	.87	2.2	1.5	2.1	2.4	2.2	2.3	27	13	2.1	1.2	4.5
26	.87	2.2	1.5	2.2	2.5	2.2	1.7	24	11	2.1	1.2	3.6
27	.87	2.1	1.7	2.3	2.5	2.2	1.1	50	9.4	2.1	1.2	3.8
28	.92	2.0	1.7	2.2	2.5	2.2	1.2	71	7.7	2.1	1.2	4.2
29	.96	2.1	1.8	2.2	---	2.2	1.9	67	7.6	1.8	1.2	4.3
30	1.0	2.0	1.9	2.3	---	2.2	2.4	63	7.9	1.5	1.2	4.2
31	1.4	---	2.0	2.2	---	2.2	---	88	---	1.5	1.9	---
TOTAL	42.30	53.7	57.1	63.6	67.5	72.2	67.1	703.2	1125.6	104.8	42.0	138.8
MEAN	1.36	1.79	1.84	2.05	2.41	2.33	2.24	22.7	37.5	3.38	1.35	4.63
MAX	2.4	2.4	2.1	2.3	3.6	2.5	3.7	88	79	7.7	1.9	8.0
MIN	.87	1.3	1.5	1.7	1.5	2.2	1.1	2.4	7.6	1.5	1.1	2.4
AC-FT	84	107	113	126	134	143	133	1390	2230	208	83	275

CAL YR 1981 TOTAL 881.85 MEAN 2.42 MAX 62 MIN .40 AC-FT 1750
WTR YR 1982 TOTAL 2537.90 MEAN 6.95 MAX 88 MIN .87 AC-FT 5030

09131100 COW CREEK NEAR PAONIA, CO

LOCATION.--Lat 39°06'15", long 107°35'00", Delta County, Hydrologic Unit 14020004, on left bank 150 ft (46 m) downstream from road culvert, 1.8 mi (2.9 km) upstream from Beaver Creek, and 16 mi (26 km) north of Paonia.

DRAINAGE AREA.--12.0 mi² (31.1 km²).

PERIOD OF RECORD.--October 1968 to September 1981 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 9,060 ft (2,761 m), from topographic map. Prior to Nov. 9, 1974, at site 150 ft (46 m) upstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Flow regulated by Overland Reservoir, capacity, 6,280 acre-ft (7.74 hm³). Diversions by Overland ditch 3.6 mi (5.8 km) above station for use outside drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 7.89 ft³/s (0.223 m³/s), 5,720 acre-ft/yr (7.05 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 172 ft³/s (4.87 m³/s), June 14, 1975, gage height, 3.01 ft (0.917 m); maximum gage height, 6.95 ft (2.118 m), site and datum then in use, Oct. 4, 1974 (backwater from beaver dam); no flow June 20-24, July 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 113 ft³/s (3.20 m³/s) at 0700 May 6, gage height, 2.83 ft (0.863 m); minimum daily, 0.50 ft³/s (0.014 m³/s) Aug. 1, 2, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	7.5	3.8	3.8	3.0	2.8	2.8	46	68	17	.50	1.4
2	1.9	7.6	4.0	3.6	3.0	3.0	2.8	36	66	42	.50	1.0
3	6.3	6.5	4.0	3.6	2.8	3.2	2.8	44	65	63	.69	2.6
4	13	6.3	4.0	3.4	2.8	3.4	2.8	55	65	68	.77	2.4
5	16	5.9	4.2	3.2	2.8	3.4	2.8	65	64	70	.56	2.4
6	16	5.8	4.4	3.0	2.8	3.4	2.6	72	62	67	.58	2.4
7	17	5.8	4.2	3.0	2.8	3.2	2.8	50	61	49	.55	2.3
8	18	5.6	4.0	3.0	2.8	3.0	2.8	48	61	28	.50	2.1
9	20	5.5	3.8	2.6	2.8	3.2	2.8	49	61	31	.55	2.1
10	19	5.0	3.8	2.2	2.8	3.0	3.6	48	54	32	1.2	2.1
11	18	4.6	3.6	2.2	2.8	3.0	3.4	47	26	27	1.1	2.9
12	19	4.4	3.6	2.4	2.8	3.2	3.2	45	26	23	.72	3.0
13	18	4.4	3.6	2.6	2.8	4.0	8.0	42	26	17	.72	3.5
14	18	4.6	3.6	3.0	2.8	4.4	13	40	26	12	.96	3.8
15	17	4.7	3.6	3.2	2.8	4.2	20	37	26	8.2	1.3	4.7
16	16	4.6	3.6	3.2	2.8	4.0	28	32	26	5.2	1.1	5.6
17	15	4.6	3.6	3.2	2.8	3.8	38	31	27	3.1	1.3	5.1
18	13	4.4	3.4	3.2	3.0	3.8	50	31	28	2.0	1.5	4.2
19	11	4.2	3.4	3.2	3.0	3.6	46	31	27	1.3	2.0	4.2
20	10	4.0	3.2	3.2	3.0	3.4	44	32	28	.98	1.1	5.0
21	9.9	4.0	3.2	3.2	3.0	3.2	50	35	32	.85	.85	4.7
22	9.7	3.8	3.2	3.2	3.0	3.0	30	41	33	.90	.84	3.8
23	9.2	3.8	3.2	3.2	3.0	3.0	20	43	23	.68	.91	3.4
24	8.9	3.9	3.2	3.2	3.0	3.2	22	44	5.9	.65	1.3	2.8
25	8.8	3.9	3.2	3.2	2.8	3.0	26	52	4.9	.63	1.3	2.8
26	11	3.8	3.2	3.2	2.8	2.8	24	60	4.2	.74	1.4	2.6
27	7.8	3.8	3.2	3.2	2.8	2.8	26	71	3.6	.90	1.6	4.1
28	7.3	3.8	3.2	3.2	2.8	2.8	26	72	3.4	1.2	1.9	4.8
29	7.1	4.0	3.4	3.2	---	2.8	30	72	3.0	1.2	1.3	4.5
30	7.4	3.8	3.6	3.2	---	2.8	36	66	4.5	.70	.92	4.9
31	7.5	---	3.6	3.0	---	2.8	---	69	---	.55	1.3	---
TOTAL	378.6	144.6	111.6	95.8	80.2	101.2	572.2	1506	1010.5	575.78	31.82	101.2
MEAN	12.2	4.82	3.60	3.09	2.86	3.26	19.1	48.6	33.7	18.6	1.03	3.37
MAX	20	7.6	4.4	3.8	3.0	4.4	50	72	68	70	2.0	5.6
MIN	1.8	3.8	3.2	2.2	2.8	2.8	2.6	31	3.0	.55	.50	1.0
AC-FT	751	287	221	190	159	201	1130	2990	2000	1140	63	201

CAL YR 1981 TOTAL 1215.45 MEAN 3.33 MAX 23 MIN .03 AC-FT 2410
WTR YR 1982 TOTAL 4709.50 MEAN 12.9 MAX 72 MIN .50 AC-FT 9340

NOTE.--NO GAGE-HEIGHT RECORD DEC. 2 TO MAY 5.

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO

LOCATION.--Lat 38°55'45", long 107°26'53", in SW¼SE¼ sec.9, T.13 S., R.90 W., Gunnison County, Hydrologic Unit 14020004, on right bank 1.5 mi (2.4 km) east of Somerset and 4.0 mi (6.4 km) (corrected) upstream from Hubbard Creek.

DRAINAGE AREA.--531 mi^2 (1,375 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Datum of gage is 6,038.91 ft (1,840.660 m) National Geodetic Vertical Datum of 1929. Prior to July 22, 1971, at site 100 ft (30 m) downstream at datum 0.31 ft (0.094 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres (12.1 km^2) above station, storage in Overland Reservoir, capacity, 6,280 acre-ft (7.74 hm^3), and storage in Paonia Reservoir, capacity, 18,300 acre-ft (22.6 hm^3) since February 1961. See table below for contents of Paonia Reservoir.

COOPERATION.--Monthend contents, in acre-feet, in Paonia Reservoir; furnished by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--49 years, 435 ft^3/s (12.32 m^3/s), 315,200 acre-ft/yr (389 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,860 ft^3/s (223 m^3/s) June 4, 1957, gage height, 5.83 ft (1.777 m), present datum; minimum daily, 17 ft^3/s (0.48 m^3/s) Nov. 10, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 59 ft^3/s (1.67 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	85	82	75	80	320	344	2050	2000	1410	276	257
2	60	92	85	70	75	332	336	2600	1980	1320	260	255
3	79	102	85	75	70	327	323	2500	1980	1230	257	264
4	84	103	90	80	70	312	349	2950	2050	1160	257	265
5	107	103	90	75	70	256	366	2800	2150	1080	302	269
6	92	103	90	75	65	203	353	2600	2110	979	299	274
7	82	110	90	70	65	215	299	2500	1970	900	297	265
8	80	111	85	70	65	197	284	2400	1970	824	293	267
9	88	104	77	70	65	202	280	2250	1980	828	290	271
10	83	100	89	70	65	202	288	2200	1910	805	294	272
11	83	97	90	75	65	209	344	2150	1830	763	283	281
12	92	86	86	75	65	319	790	2050	1890	718	283	346
13	91	83	79	75	65	282	902	1850	1830	736	280	269
14	90	82	78	75	65	268	958	1500	1720	608	291	261
15	91	81	87	75	65	263	1020	1150	1640	500	286	219
16	122	80	84	75	65	248	1030	1150	1550	433	274	221
17	114	77	79	75	65	248	1020	1200	1600	394	269	240
18	104	80	80	70	70	278	1140	1250	1710	376	274	247
19	100	76	85	70	75	329	1230	1300	1710	353	279	225
20	97	66	85	70	80	323	1180	1450	1560	330	301	322
21	95	82	80	70	83	313	1090	1900	1490	313	371	346
22	94	78	80	70	91	315	1090	2300	1550	301	312	273
23	90	76	75	70	155	307	1180	2200	1590	284	317	242
24	92	76	70	70	220	304	1220	2150	1500	270	303	219
25	90	76	70	75	216	299	1270	2000	1470	258	340	217
26	84	71	70	80	214	319	1370	2040	1410	247	329	231
27	90	75	70	80	253	336	1410	2230	1400	321	262	240
28	89	81	75	80	314	336	1540	2230	1460	384	262	256
29	95	80	75	75	---	357	1850	2160	1450	434	265	224
30	97	80	80	75	---	328	1870	2100	1380	364	263	205
31	92	---	80	80	---	323	---	1960	---	314	268	---
TOTAL	2806	2596	2521	2290	2916	8870	26726	63170	51840	19237	8937	7743
MEAN	90.5	86.5	81.3	73.9	104	286	891	2038	1728	621	288	258
MAX	122	111	90	80	314	357	1870	2950	2150	1410	371	346
MIN	59	66	70	70	65	197	280	1150	1380	247	257	205
AC-FT	5570	5150	5000	4540	5780	17590	53010	125300	102800	38160	17730	15360
a	5790	7620	8760	9250	-	2570	8080	16670	18360	18150	1394C	-

CAL YR 1981 TOTAL 88103 MEAN 241 MAX 1830 MIN 46 AC-FT 174800
WTR YR 1982 TOTAL 199652 MEAN 547 MAX 2950 MIN 59 AC-FT 396000

a MONTHEND CONTENTS, IN ACRE-FEET, IN PAONIA RESERVOIR, FURNISHED BY U.S. BUREAU OF RECLAMATION

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

PERIOD OF RECORD.--October 1977 to September 1982 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT											
07...	1400	78	160	153	7.1	12.0	--	60	19	3.1	7.1
DEC											
08...	1330	65	195	171	6.3	.0	--	70	22	3.7	7.8
JAN											
26...	1030	91	210	280	--	.0	--	81	25	4.4	8.9
MAR											
23...	1045	285	235	245	8.7	2.5	9.5	110	34	5.8	10
MAY											
04...	1515	3020	110	132	6.9	8.5	8.4	54	17	2.9	4.4
05...	1800	3080	126	135	7.8	7.0	--	55	17	3.0	4.8
JUN											
09...	1640	1980	75	98	8.5	13.0	--	44	14	2.1	7.1
17...	1100	1680	53	87	7.8	10.5	--	35	11	1.8	3.8
22...	1415	1800	73	92	--	13.5	--	35	11	1.9	4.6
29...	1630	1400	235	87	6.7	18.5	--	38	12	1.9	3.0
JUL											
15...	1545	513	81	100	9.1	16.5	--	40	13	1.9	3.8
27...	1345	309	120	121	7.3	19.0	7.3	48	15	2.5	4.5
AUG											
10...	1630	225	112	134	8.5	18.0	--	60	19	3.0	5.6
19...	1400	225	129	142	8.2	19.0	--	58	18	3.2	5.2
24...	1315	283	140	123	6.8	15.0	8.6	51	16	2.7	4.3

DATE	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT											
07...	.4	.7	66	5.0	1.8	.1	9.0	86	.12	18.0	< .10
DEC											
08...	.4	.8	73	7.0	2.2	.0	9.4	97	.13	17.1	< .10
JAN											
26...	.5	1.6	91	5.0	2.3	.1	9.5	147	.20	36.3	.11
MAR											
23...	.4	1.3	120	5.0	2.4	.2	9.8	141	.19	108	< .10
MAY											
04...	.3	1.0	60	7.0	1.2	.2	8.8	79	.11	644	.14
05...	.3	1.0	61	6.0	2.0	.2	9.1	81	.11	674	--
JUN											
09...	.5	.5	43	6.0	.7	.1	8.7	65	.09	347	--
17...	.3	.5	41	7.0	1.1	.2	8.0	59	.08	268	--
22...	.4	.5	40	9.0	1.0	.2	7.9	62	.08	301	--
29...	.2	.5	38	7.0	.5	< .1	7.9	56	.08	212	< .10
JUL											
15...	.3	.5	44	6.0	.7	< .1	7.8	60	.08	83.1	--
27...	.3	1.0	56	9.0	.9	< .1	8.5	75	.10	62.6	< .10
AUG											
10...	.3	.7	60	8.0	.9	.1	9.6	83	.11	50.4	--
19...	.3	.7	59	8.0	1.4	< .1	9.1	81	.11	49.2	--
24...	.3	.7	45	8.0	.8	< .1	8.5	68	.09	52.0	< .10

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	IRON, DIS-SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C)
OCT											
07...	--	.090	.20	.29	--	.010	0	22	4.8	1.9	--
DEC											
08...	--	.160	.17	.33	--	.010	10	230	1.8	1.5	.3
JAN											
26...	--	.300	.39	.69	.80	.010	10	77	4.1	4.4	.5
MAR											
23...	--	<.060	--	.39	--	.020	30	19	3.6	2.7	.4
MAY											
04...	--	.130	.46	.59	.73	.130	< 10	64	--	5.1	.6
05...	.37	--	--	--	--	--	--	--	--	--	--
JUN											
09...	< .10	--	--	--	--	--	--	--	--	--	--
17...	.30	--	--	--	--	.060	--	27	--	--	--
22...	.37	--	--	--	--	--	--	--	--	--	--
29...	--	< .070	--	.70	--	< .010	< 10	150	4.6	6.0	.5
JUL											
15...	< .10	--	--	--	--	--	--	--	--	--	--
27...	--	.100	.50	.60	--	.040	150	22	2.8	2.8	.3
AUG											
10...	<.10	--	--	--	--	--	--	--	--	--	--
19...	<.10	--	--	--	--	.036	--	27	--	--	--
24...	--	.320	1.2	1.50	--	.090	< 10	33	4.6	.6	.8

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT									
07...	150	--	0	--	0	1	--	10	--
JAN									
26...	200	--	2	--	0	3	--	10	--
MAR									
23...	470	--	2	--	< 10	1	--	< 10	--
JUN									
17...	910	30	1	< 1	--	< 1	< 1	3	< 1
JUL									
27...	300	--	1	--	< 10	1	--	< 10	--
AUG									
19...	600	20	< 1	< 1	--	< 1	< 1	5	< 1

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	COBALT. TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT. DIS-SOLVED (UG/L AS CO)	COPPER. TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER. DIS-SOLVED (UG/L AS CU)	IRON. TOTAL RECOV-ERABLE (UG/L AS FE)	LEAD. TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD. DIS-SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI)	MANGA-NESE. TOTAL RECOV-ERABLE (UG/L AS MN)
OCT 07...	--	--	6	--	--	2	--	10	10
JAN 26...	--	--	12	--	--	5	--	< 10	10
MAR 23...	--	--	11	--	--	6	--	10	80
JUN 17...	< 1	< 1	3	1	1000	2	< 1	--	30
JUL 27...	--	--	7	--	--	< 1	--	< 10	20
AUG 19...	< 1	1	2	1	790	6	1	--	20

DATE	MANGA-NESE. DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYB-DENUM. TOTAL RECOV-ERABLE (UG/L AS MO)	NICKEL. TOTAL RECOV-ERABLE (UG/L AS NI)	SELE-NIUM. TOTAL (UG/L AS SE)	SELE-NIUM. DIS-SOLVED (UG/L AS SE)	ZINC. TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC. DIS-SOLVED (UG/L AS ZN)
OCT 07...	--	.0	--	2	5	0	--	10	--
JAN 26...	--	.4	--	2	2	< 1	--	30	--
MAR 23...	--	.1	--	<1	11	< 1	--	10	--
JUN 17...	4	.2	<.1	--	--	< 1	< 1	30	50
JUL 27...	--	.2	--	1	3	< 1	--	30	--
AUG 19...	4	.1	< .1	--	--	< 1	< 1	30	3

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW. INSTAN-TANEOUS (CFS)	SEDI-MENT. SUS-PENDED (MG/L)	SEDI-MENT. DIS-CHARGE. SUS-PENDED (T/DAY)
OCT 07...	1400	78	8	1.7
DEC 08...	1330	65	28	4.9
JAN 26...	1030	91	9	2.2
MAR 23...	1045	285	35	27
MAY 04...	1515	3020	470	3830
JUN 17...	1100	1680	52	236
29...	1630	1400	36	136
JUL 27...	1345	309	10	8.3
AUG 19...	1400	225	23	14
24...	1315	283	66	50

09135900 LEROUX CREEK AT HOTCHKISS, CO

LOCATION.--Lat 38°47'53", long 107°43'53", in NW¼NE¼ sec.36, T.14 S., R.93 W., Delta County, Hydrologic Unit 14020004, on left bank at upstream side of culvert, 0.3 mi (0.5 km) west of Hotchkiss city limits, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--66.7 mi² (172.8 km²).

PERIOD OF RECORD.--June 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,315 ft (1,620 m), from topographic map.

REMARKS.--Records good. Natural flow of stream is affected by diversions above station for irrigation and by return flow from irrigated area above station. Mostly return flow after June. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 25.8 ft³/s (0.731 m³/s), 18,690 acre-ft/yr, (23.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft³/s (22.3 m³/s) June 11, 1980, gage height, 8.29 ft (2.527 m); minimum daily, 0.55 ft³/s (0.016 m³/s) July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 321 ft³/s (9.09 m³/s) at 2300 May 29, gage height, 5.83 ft (1.777 m); minimum daily, 4.4 ft³/s (0.12 m³/s) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	12	9.9	9.6	8.0	8.2	8.2	127	90	22	9.6	7.8
2	6.1	11	10	9.6	7.7	8.4	8.2	166	70	11	9.1	7.9
3	6.4	11	12	8.8	7.9	10	8.2	225	90	5.6	8.9	8.1
4	6.7	10	13	8.2	7.9	10	7.9	209	110	4.8	8.9	7.9
5	8.2	14	11	8.2	7.9	9.0	7.9	194	130	5.0	8.9	8.9
6	7.5	13	10	8.2	7.9	8.7	8.2	159	120	6.0	9.2	8.8
7	6.9	11	10	8.2	7.9	9.2	8.2	112	120	6.1	9.2	8.7
8	6.9	10	9.9	5.7	7.9	8.9	8.2	76	130	5.9	9.2	9.1
9	6.6	9.8	9.6	4.4	7.9	8.9	11	96	134	6.1	10	9.1
10	6.4	9.3	9.6	5.6	7.9	8.9	9.9	68	127	5.5	9.2	7.5
11	6.4	9.9	9.6	6.9	7.9	8.9	8.9	70	104	5.5	9.1	7.5
12	6.4	10	9.6	8.6	7.9	15	44	70	123	8.2	10	7.6
13	6.6	13	9.6	8.6	7.9	14	61	60	108	9.1	9.8	9.0
14	7.3	11	9.6	8.6	7.9	12	95	55	79	9.8	9.1	17
15	8.1	11	9.6	8.6	7.9	11	147	60	65	7.4	7.7	22
16	11	11	9.5	8.6	7.9	11	146	60	28	5.5	8.1	50
17	11	11	9.1	8.6	8.2	11	133	60	28	5.9	8.6	55
18	11	14	8.7	8.6	8.2	10	154	70	62	5.9	9.0	50
19	10	11	8.6	8.6	8.2	9.8	128	75	111	6.0	7.9	51
20	10	11	8.6	8.6	8.2	9.3	81	85	69	7.5	7.5	70
21	10	11	8.6	8.6	8.2	8.4	60	90	37	9.8	7.2	84
22	10	11	8.6	8.6	8.2	9.4	63	95	19	14	7.3	73
23	8.8	11	8.6	8.6	8.2	9.2	77	85	10	13	8.1	67
24	8.6	11	8.4	8.6	8.2	8.5	67	75	7.7	13	11	60
25	8.6	11	8.2	8.6	8.2	7.9	81	100	7.1	13	16	54
26	8.6	11	8.2	8.6	8.2	7.9	74	130	16	9.9	10	54
27	16	10	8.2	8.6	8.2	7.9	80	236	9.3	7.6	9.6	82
28	16	9.9	8.7	8.6	8.2	7.9	119	222	9.5	6.8	8.8	77
29	15	9.9	9.6	8.6	---	7.9	142	220	15	7.6	8.2	54
30	15	9.9	9.6	7.9	---	7.9	103	220	7.6	9.2	7.3	50
31	12	---	9.6	7.9	---	7.9	---	125	---	9.6	7.0	---
TOTAL	284.2	329.7	293.8	254.0	224.7	293.0	1949.8	3695	2036.2	262.3	279.5	1077.9
MEAN	9.17	11.0	9.48	8.19	8.03	9.45	65.0	119	67.9	8.46	9.02	35.9
MAX	16	14	13	9.6	8.2	15	154	236	134	22	16	84
MIN	6.1	9.3	8.2	4.4	7.7	7.9	7.9	55	7.1	4.8	7.0	7.5
AC-FT	564	654	583	504	446	581	3870	7330	4040	520	554	2140

CAL YR 1981 TOTAL 2972.3 MEAN 8.14 MAX 184 MIN 1.5 AC-FT 5900
WTR YR 1982 TOTAL 10980.1 MEAN 30.1 MAX 236 MIN 4.4 AC-FT 21780

09136200 GUNNISON RIVER NEAR LAZEAR, CO

LOCATION.--Lat 38°46'59", long 107°50'14", in NE¼NE¼ sec.1, T.15 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 300 ft (91 m) downstream from North Fork Gunnison River and 3.0 mi (4.8 km) west of Lazear.

DRAINAGE AREA.--5,241 mi² (13,574 km²).

PERIOD OF RECORD.--May 1962 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,090 ft (1,551 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 150,000 acres (607 km²), part of which is in the Uncompahgre River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years, 1,628 ft³/s (46.10 m³/s), 1,179,000 acre-ft/yr, (1,450 hm³/yr) since completion of Crystal Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s (419 m³/s) May 13, 1962, gage height, 6.30 ft (1.920 m), from recorded range in stage; minimum daily, 115 ft³/s (3.26 m³/s) Oct. 6, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,840 ft³/s (137 m³/s) at 0900 May 5, gage height, 3.96 ft (1.207 m); minimum daily, 372 ft³/s (10.5 m³/s) Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503	802	912	795	1280	1880	1190	2330	3150	2580	997	867
2	520	769	783	787	1490	2020	1140	3040	3040	2390	978	821
3	555	396	796	768	1530	2130	1130	3780	3030	2260	959	879
4	586	382	795	756	1510	2020	1140	3560	3090	2190	982	978
5	658	448	794	736	1510	2000	1180	4270	3230	2120	1020	967
6	597	455	795	737	1510	1940	1180	4060	3210	1980	1000	962
7	582	474	795	746	1490	1940	1120	3640	2980	1780	862	1010
8	576	465	794	925	1560	1840	1060	3610	2940	1540	953	1200
9	657	458	781	1100	1680	1860	991	3540	2840	1480	973	1250
10	650	459	741	884	1700	2070	997	3290	2890	1440	989	1310
11	649	438	721	820	1780	2070	1050	3140	2880	1380	935	1410
12	661	422	799	809	1700	2130	1470	3140	2920	1350	957	1510
13	668	417	795	812	1740	2070	1640	2940	2840	1310	951	1550
14	658	401	767	905	1680	2090	1800	2640	2830	1330	965	1590
15	661	395	740	1140	1680	2090	1900	2190	3220	1300	931	1550
16	707	420	786	1150	1720	1920	1790	1600	2980	1260	966	1540
17	693	1090	782	1150	1720	1960	1480	1630	3070	1220	1030	1510
18	675	890	752	1170	1720	2020	1590	1700	3230	1210	1050	1470
19	678	875	755	1060	1720	2070	1710	1780	3380	1160	1060	1480
20	673	839	807	521	1720	2040	1520	1850	3120	1080	1030	1550
21	663	868	799	421	1720	1960	1440	2170	2960	1010	1070	1630
22	669	886	800	412	1700	1900	1450	3050	3000	986	1060	1540
23	656	890	779	408	1660	1780	1640	3340	3010	969	1150	1490
24	657	882	751	401	1740	1700	1570	3210	2940	942	1190	1500
25	669	873	758	388	1780	1420	1680	2980	2820	919	1240	1430
26	656	893	776	372	1780	1220	1730	2990	2790	905	1310	1460
27	732	889	796	373	1800	1210	1770	3370	2680	923	1240	1520
28	764	884	780	652	1860	1210	1880	3330	2650	967	1210	1590
29	768	898	775	1310	---	1210	2010	3260	2710	1020	1210	1530
30	800	902	795	1290	---	1120	1930	3270	2500	1030	1160	1540
31	803	---	799	1260	---	1200	---	3050	---	1050	957	---
TOTAL	20444	20160	24298	25058	46480	56090	44178	91750	88930	43081	32385	40634
MEAN	659	672	784	808	1660	1809	1473	2960	2964	1390	1045	1354
MAX	803	1090	912	1310	1860	2130	2010	4270	3380	2580	1310	1630
MIN	503	382	721	372	1280	1120	991	1600	2500	905	862	821
AC-FT	40550	39990	48200	49700	92190	111300	87630	182000	176400	85450	64240	80600

CAL YR 1981 TOTAL 313424 MEAN 859 MAX 2460 MIN 330 AC-FT 621700
WTR YR 1982 TOTAL 533488 MEAN 1462 MAX 4270 MIN 372 AC-FT 1058000

09137050 CURRANT CREEK NEAR READ, CO

LOCATION.--Lat 38°47'05", long 107°56'18", in SW¼SE¼ sec.31, T.14 S., R.94 W., Delta County, Hydrologic Unit 14020005, on right bank 0.2 mi (0.3 km) downstream from Dry Creek, 0.4 mi (0.6 km) upstream from mouth, 0.7 mi (1.1 km) northeast of Austin, and 2.4 mi (3.9 km) northeast of Read.

DRAINAGE AREA.--56.9 mi² (147.4 km²).

PERIOD OF RECORD.--May 1976 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,035 ft (1,535 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 7.51 ft³/s (0.213 m³/s), 5,440 acre-ft/yr (6.71 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 420 ft³/s (11.9 m³/s) May 22, 1980, gage height, 5.12 ft (1.561 m), no flow Aug. 2, 4, 5, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 195 ft³/s (5.52 m³/s) at 0500 May 3, gage height, 4.35 ft (1.326 m); minimum daily, 0.03 ft³/s (0.001 m³/s) Aug. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	4.0	4.0	4.5	3.8	3.2	11	53	3.5	3.4	1.0	1.9
2	1.3	4.2	4.2	4.4	3.6	3.6	9.4	78	2.2	2.1	1.0	1.7
3	2.0	3.4	4.2	3.8	3.4	4.0	7.9	118	1.7	1.6	1.3	2.1
4	4.8	3.4	4.2	3.5	3.4	3.9	8.8	60	2.1	3.2	1.2	3.4
5	8.7	3.3	4.5	3.7	2.4	3.4	2.8	44	2.1	1.9	.85	3.9
6	3.6	3.3	4.5	4.1	2.4	2.9	2.7	21	3.2	1.7	.31	4.2
7	3.1	3.7	4.5	3.1	2.4	3.0	2.5	10	3.3	2.1	.13	4.2
8	3.0	3.7	4.4	3.7	2.4	2.9	2.4	7.3	2.6	2.2	.16	4.7
9	2.9	4.5	4.4	3.9	2.4	2.9	3.1	9.2	9.2	1.9	.16	4.4
1C	2.9	4.6	4.6	3.9	2.5	2.8	2.9	7.3	8.1	1.0	.03	4.3
11	3.0	4.7	4.9	3.9	3.0	2.9	2.9	7.4	7.0	.89	.03	6.2
12	3.8	4.9	4.9	3.9	3.3	3.8	4.7	7.2	8.6	.76	.05	8.7
13	3.3	5.0	4.9	3.9	3.3	15	13	7.2	11	.57	.22	12
14	3.3	5.1	4.5	3.9	3.5	18	20	7.1	12	.36	.43	15
15	3.6	5.0	4.9	3.8	3.8	15	31	6.9	9.7	.48	.34	14
16	8.2	4.9	4.9	3.6	4.0	13	15	6.8	8.7	.60	.41	14
17	4.2	5.0	4.2	3.6	4.6	10	4.6	6.8	5.9	.35	.63	13
18	3.7	5.0	3.9	3.8	4.3	9.2	9.3	6.5	7.7	.18	.77	14
19	3.9	5.0	4.2	3.9	3.8	8.5	12	6.5	7.3	.11	.88	14
20	3.9	4.9	4.9	4.1	3.7	7.6	4.3	6.5	8.1	.06	.63	15
21	3.9	3.8	5.2	4.1	3.6	6.9	4.4	6.5	7.4	.06	.62	14
22	3.9	4.1	4.9	3.9	3.6	6.7	3.1	9.4	6.1	.07	1.1	13
23	3.9	4.0	3.9	3.4	3.7	6.7	7.6	17	5.9	.10	1.1	13
24	3.9	3.9	3.2	3.7	3.4	6.8	3.7	10	6.5	.07	1.5	15
25	3.9	4.1	3.3	3.6	3.5	7.6	8.7	7.2	7.7	.08	1.5	18
26	3.8	4.0	3.3	3.9	3.3	11	5.7	8.5	8.8	.08	2.0	20
27	3.9	3.9	3.8	4.2	3.3	11	6.5	13	9.5	.10	1.6	22
28	4.0	4.1	3.7	4.0	3.2	10	22	12	8.9	.62	1.1	26
29	4.1	4.9	3.7	4.4	---	12	46	7.7	3.9	.95	1.1	26
30	4.1	5.1	4.0	3.9	---	9.4	20	8.8	3.0	.73	1.6	25
31	4.1	---	4.2	3.8	---	8.4	---	3.6	---	1.1	1.8	---
TOTAL	117.60	129.5	132.9	119.9	93.6	232.1	298.0	580.4	191.7	29.42	25.55	352.7
MEAN	3.79	4.32	4.29	3.87	3.34	7.49	9.93	18.7	6.39	.95	.82	11.8
MAX	8.7	5.1	5.2	4.5	4.6	18	46	118	12	3.4	2.0	26
MIN	.90	3.3	3.2	3.1	2.4	2.8	2.4	3.6	1.7	.06	.03	1.7
AC-FT	233	257	264	238	186	460	591	1150	380	58	51	700

CAL YR 1981 TOTAL 898.74 MEAN 2.46 MAX 8.7 MIN .02 AC-FT 1780
WTR YR 1982 TOTAL 2303.37 MEAN 6.31 MAX 118 MIN .03 AC-FT 4570

09143000 SURFACE CREEK NEAR CEDAREDGE, CO

LOCATION.--Lat 38°59'05", long 107°51'13", in NW¼NW¼ sec.25, T.12 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 5 ft (2 m) downstream from private bridge, 1.4 mi (2.3 km) downstream from Caesar Creek, and 7.0 mi (11.3 km) northeast of Cedaredge.

DRAINAGE AREA.--26.7 mi² (69.2 km²).

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,261 ft (2,518 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--43 years, 41.2 ft³/s (1.167 m³/s), 29,850 acre-ft/yr (36.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s (17.8 m³/s) June 8, 1980, gage height, 3.32 ft (1.012 m), from rating curve extended above 310 ft³/s (8.8 m³/s); maximum gage height, 5.10 ft (1.554 m) Apr. 13, 1958 (ice jam); minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Jan. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 238 ft³/s (6.74 m³/s) at 1930 May 2, gage height, 2.38 ft (0.725 m), maximum gage-height, 2.65 ft (0.808 m) Mar. 6, (backwater from ice); minimum daily discharge, 5.2 ft³/s (0.15 m³/s) Dec. 18, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	6.5	6.0	5.8	6.0	5.8	6.5	135	171	192	78	94
2	25	7.0	6.0	6.5	6.0	6.0	6.5	162	162	171	82	94
3	26	6.5	5.5	6.2	6.0	6.0	6.5	195	183	156	82	94
4	38	6.0	5.5	6.0	6.0	6.0	6.8	186	198	142	80	88
5	36	5.8	5.8	6.0	6.0	5.5	7.0	168	214	130	78	84
6	23	5.5	5.5	6.2	6.0	5.5	6.8	145	201	119	78	82
7	20	6.2	5.5	5.5	5.5	5.5	6.8	125	201	110	77	46
8	20	6.0	5.5	5.5	5.5	6.0	6.5	130	204	116	76	43
9	18	6.8	5.5	5.5	5.5	6.0	6.8	135	210	119	77	49
10	14	7.0	5.5	5.5	5.5	6.5	7.0	119	207	114	66	53
11	17	7.0	5.5	6.0	5.5	7.0	8.2	110	204	104	66	64
12	19	7.3	5.5	6.0	5.5	7.0	20	86	214	104	62	58
13	18	7.3	5.5	5.5	5.5	6.5	26	76	201	125	62	60
14	16	6.5	5.5	5.5	5.5	6.0	51	70	192	123	65	43
15	14	6.2	5.5	5.5	5.5	6.0	60	73	192	114	61	57
16	14	6.2	5.5	5.5	5.5	6.0	53	77	186	108	62	64
17	11	6.2	5.5	5.5	5.5	6.0	52	86	177	98	62	62
18	10	6.2	5.2	5.5	5.5	5.8	66	101	204	94	60	62
19	11	6.0	5.5	5.5	5.5	5.8	66	114	201	91	59	60
20	11	5.5	5.5	6.0	5.8	5.5	48	112	192	108	61	69
21	11	6.0	5.8	6.0	5.8	5.5	38	132	183	108	62	60
22	9.4	6.5	5.5	5.5	6.0	5.5	49	153	177	94	60	57
23	7.0	6.0	5.5	5.5	6.0	6.0	54	153	171	84	59	32
24	6.8	6.0	5.2	5.5	5.8	6.5	52	148	168	78	69	29
25	6.8	5.8	5.5	5.5	5.8	6.2	66	156	168	82	70	31
26	6.5	5.5	5.5	6.0	5.8	6.5	69	174	162	86	89	32
27	6.0	6.0	5.8	6.0	5.8	6.5	82	186	165	114	89	56
28	6.0	6.0	5.8	5.5	5.8	6.5	112	186	165	112	70	48
29	6.0	6.0	5.5	5.5	---	6.5	116	180	165	99	68	43
30	6.0	6.0	5.8	5.8	---	6.5	118	171	165	94	66	53
31	6.5	---	6.0	5.8	---	6.5	---	159	---	80	89	---
TOTAL	462.0	187.5	172.9	177.8	160.1	189.1	1273.4	4203	5603	3469	2185	1767
MEAN	14.9	6.25	5.58	5.74	5.72	6.10	42.4	136	187	112	70.5	58.9
MAX	38	7.3	6.0	6.5	6.0	7.0	118	195	214	192	89	94
MIN	6.0	5.5	5.2	5.5	5.5	5.5	6.5	70	162	78	59	29
AC-FT	916	372	343	353	318	375	2530	8340	11110	6880	4330	3500

CAL YR 1981 TOTAL 9321.5 MEAN 25.5 MAX 135 MIN 3.5 AC-FT 18490
WTR YR 1982 TOTAL 19849.8 MEAN 54.4 MAX 214 MIN 5.2 AC-FT 39370

09143500 SURFACE CREEK AT CEDAREDGE, CO

LOCATION.--Lat 38°54'06", long 107°55'14", in SW¼SE¼ sec.20, T.13 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank at Cedaredge, 700 ft (210 m) east of State Highway 65, and 8.5 mi (13.7 km) upstream from mouth.

DRAINAGE AREA.--39.5 mi² (102.3 km²).

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,220 ft (1,896 m), from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft (0.152 m) higher.

REMARKS.--Records good. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--66 years, 27.0 ft³/s (0.765 m³/s), 19,560 acre-ft/yr (24.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s (33.7 m³/s) May 13, 1941, gage height, 2.50 ft (0.762 m), from rating curve extended above 640 ft³/s (18 m³/s); no flow Sept. 25, 1939, and practically no flow at times in some winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 303 ft³/s (8.58 m³/s) at 1900 May 2, gage height, 2.47 ft (0.753 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Nov. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	7.2	2.2	3.4	3.6	3.9	5.5	135	76	119	36	36
2	12	7.6	3.2	3.6	3.6	4.4	5.2	177	64	92	40	36
3	22	8.5	3.6	3.9	3.7	4.4	5.0	215	86	80	30	38
4	40	8.5	3.6	4.2	3.7	3.7	5.8	178	107	80	25	44
5	39	7.6	3.4	3.9	3.6	3.4	6.6	148	127	76	22	48
6	25	6.6	3.2	3.7	3.8	3.6	6.6	107	117	76	20	47
7	22	7.6	3.0	3.9	3.6	3.6	6.1	78	109	68	24	24
8	23	7.6	2.8	3.6	3.7	3.7	5.5	75	115	70	26	21
9	20	6.9	2.6	3.6	3.6	3.7	6.1	75	123	78	27	20
10	16	6.9	3.0	3.8	3.2	4.2	6.9	70	123	68	30	23
11	18	5.8	2.9	4.0	3.0	4.4	10	76	111	61	34	37
12	23	5.2	2.7	3.9	2.9	9.8	26	64	117	58	36	30
13	20	6.1	2.2	3.4	2.7	7.6	46	58	99	58	38	36
14	18	5.8	2.1	3.0	3.0	7.2	52	55	90	57	43	31
15	16	5.5	2.5	2.9	3.2	6.6	53	62	90	52	40	43
16	19	5.5	2.3	3.0	3.2	5.8	47	63	83	48	38	38
17	15	5.2	1.7	3.4	3.2	5.2	55	64	90	48	36	25
18	13	5.2	2.0	3.4	3.2	5.0	78	70	113	52	31	20
19	15	2.6	3.4	3.4	3.4	4.7	62	81	109	48	30	20
20	14	4.4	3.7	3.4	3.4	4.4	43	80	92	55	30	28
21	13	4.4	3.7	3.4	3.9	3.4	33	92	75	52	35	20
22	11	4.1	3.2	3.4	4.7	3.4	50	99	70	39	32	16
23	7.2	4.1	2.6	3.4	4.4	3.6	62	83	69	33	30	15
24	7.6	3.6	3.2	3.4	4.2	4.2	57	75	66	30	39	18
25	8.1	2.9	3.4	3.6	4.2	5.0	76	83	61	31	42	20
26	8.5	1.5	3.4	3.6	3.7	5.8	74	95	70	36	50	22
27	8.9	2.6	3.2	3.9	4.1	5.5	91	111	81	57	47	44
28	8.9	2.0	3.0	3.6	4.1	5.2	125	103	83	57	41	35
29	7.6	3.4	3.2	3.7	---	5.8	115	93	86	53	41	28
30	6.9	2.9	3.4	3.7	---	5.5	102	83	86	50	41	35
31	5.8	---	3.6	3.6	---	4.2	---	68	---	38	39	---
TOTAL	492.4	157.8	92.0	110.7	100.6	150.9	1316.3	2916	2788	1820	1073	898
MEAN	15.9	5.26	2.97	3.57	3.59	4.87	43.9	94.1	92.9	58.7	34.6	29.9
MAX	40	8.5	3.7	4.2	4.7	9.8	125	215	127	119	50	48
MIN	5.8	1.5	1.7	2.9	2.7	3.4	5.0	55	61	30	20	15
AC-FT	977	313	182	220	200	299	2610	5780	5530	3610	2130	1780

CAL YR 1981 TOTAL 6338.4 MEAN 17.4 MAX 127 MIN 1.5 AC-FT 12570
WTR YR 1982 TOTAL 11915.7 MEAN 32.6 MAX 215 MIN 1.5 AC-FT 23630

09144200 TONGUE CREEK AT CORY, CO

LOCATION.--Lat 38°47'16", long 107°59'41", in SE¼SE¼ sec.34, T.14 S., R.95 W., Delta County, Hydrologic Unit 14020005, on left bank at downstream side of bridge, 500 ft (150 m) upstream from North Delta canal headgate, 0.5 mi (0.8 km) west of Cory, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--196 mi^2 (508 km^2).

PERIOD OF RECORD.--October 1957 to September 1968, May 1976 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,030 ft (1,533 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Diversions to and from nearby streams. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years (water years 1958-68, 1977-82), 28.2 ft^3/s (0.799 m^3/s), 20,430 acre-ft/yr (25.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 855 ft^3/s (24.2 m^3/s) May 23, 1980, gage height, 5.86 ft (1.786 m); minimum daily, 0.35 ft^3/s (0.010 m^3/s) July 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 255 ft^3/s (7.22 m^3/s) at 0300 Oct. 5, gage height, 4.74 ft (1.445 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Oct. 1, July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	27	30	29	24	28	45	74	85	49	18	27
2	16	27	28	29	23	30	39	94	67	35	23	25
3	31	28	28	26	22	34	35	167	59	26	21	26
4	51	29	28	29	20	34	39	130	68	26	18	28
5	141	29	29	31	15	30	46	100	93	29	16	36
6	43	28	30	29	15	26	41	69	78	29	17	34
7	35	30	29	24	15	28	37	53	67	28	15	28
8	31	31	28	24	15	29	33	44	67	25	16	24
9	30	29	28	26	16	28	32	47	62	28	21	24
10	27	29	27	26	17	29	32	36	62	23	20	29
11	26	29	28	26	19	32	37	38	52	21	18	43
12	28	29	28	26	20	54	66	44	61	19	23	53
13	29	29	28	26	22	55	121	59	66	21	21	95
14	27	29	27	25	23	57	117	44	58	18	30	90
15	29	29	29	25	24	55	106	48	61	17	29	97
16	68	29	30	23	26	43	80	50	54	16	26	105
17	32	28	27	24	27	38	54	55	55	17	26	85
18	28	28	24	25	27	35	72	50	69	20	22	83
19	27	27	29	25	27	33	87	61	69	21	22	79
20	29	26	32	26	27	30	46	51	82	21	19	99
21	30	27	33	26	27	26	34	48	57	18	18	86
22	30	28	32	25	28	27	29	62	47	19	25	75
23	29	28	26	23	31	28	44	61	43	16	25	70
24	30	28	24	23	29	29	33	67	41	13	24	66
25	30	28	26	22	29	31	44	82	32	14	30	67
26	29	28	26	23	29	37	45	83	34	16	44	68
27	29	27	28	24	29	39	39	124	38	19	42	119
28	29	27	25	23	28	41	84	114	36	21	38	132
29	30	29	25	25	---	46	95	104	35	25	35	98
30	29	32	28	25	---	39	57	105	28	26	33	101
31	28	---	29	24	---	35	---	71	---	18	33	---
TOTAL	1064	852	869	787	654	1106	1669	2235	1726	694	768	1992
MEAN	34.3	28.4	28.0	25.4	23.4	35.7	55.6	72.1	57.5	22.4	24.8	66.4
MAX	141	32	33	31	31	57	121	167	93	49	44	132
MIN	13	26	24	22	15	26	29	36	28	13	15	24
AC-FT	2110	1690	1720	1560	1300	2190	3310	4430	3420	1380	1520	3950

CAL YR 1981 TOTAL 7110.24 MEAN 19.5 MAX 141 MIN .46 AC-FT 14100
WTR YR 1982 TOTAL 14416.00 MEAN 39.5 MAX 167 MIN 13 AC-FT 28590

09144250 GUNNISON RIVER AT DELTA, CO

LOCATION.--Lat 38°45'01", long 108°04'06", in SE¼NE¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank near upstream side of U.S. Highway 50 bridge at north edge of Delta.

DRAINAGE AREA.--5,628 mi² (14,577 km²).

PERIOD OF RECORD.--May 1976 to current year. Gage-height records collected at this site 1912-77 (flood seasons only) are in reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 4,919.97 ft (1,499.607 m) National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, and many diversions for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 1,657 ft³/s (46.93 m³/s), 1,200,000 acre-ft/yr, (1,480 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 12,100 ft³/s (343 m³/s) May 24, 1980; minimum daily, 208 ft³/s (5.89 m³/s) Aug. 11, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height observed, 13.5 ft (4.11 m) June 6, 1957, from National Weather Service wire-weight gage at present datum (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,820 ft³/s (165 m³/s) at 0800 May 5, gage-height, 7.96 ft. (2.426 m); minimum daily, 395 ft³/s (11.2 m³/s) Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	570	969	1000	901	1400	2380	1450	3150	3100	2820	1230	968
2	596	984	862	874	1610	2410	1380	3520	3060	2730	1220	875
3	721	539	875	841	1720	2490	1330	4390	3000	2540	1200	895
4	840	395	894	804	1700	2470	1340	4880	3070	2420	1190	1000
5	1270	481	905	809	1700	2400	1380	5240	3300	2340	1210	1090
6	861	553	900	809	1670	2280	1360	4260	3300	2240	1220	1120
7	795	572	892	767	1680	2250	1310	3640	3080	2040	1000	1080
8	734	563	889	795	1760	2240	1240	3390	3010	1740	1070	1440
9	831	548	880	867	1960	2040	1110	3340	2930	1640	1140	1540
10	843	544	830	896	1990	2270	1070	3180	2980	1640	1200	1650
11	841	535	806	901	2090	2290	1120	3160	2930	1570	1120	1810
12	854	472	874	918	2100	2440	1590	3120	2960	1520	1150	1960
13	872	450	899	835	2120	2530	2300	3190	2990	1450	1140	2110
14	838	439	876	913	2130	2480	2510	2920	2900	1500	1240	2130
15	850	430	810	1270	2140	2480	2720	2560	3230	1490	1190	2040
16	999	444	880	1290	2140	2400	2540	1680	3090	1440	1140	2000
17	905	892	877	1310	2150	2370	2070	1640	3100	1390	1220	1940
18	866	1440	835	1330	2190	2350	2210	1800	3390	1410	1210	1890
19	863	1100	835	1330	2160	2400	2360	1910	3570	1400	1180	1870
20	841	960	910	668	2170	2420	2040	2000	3320	1330	1100	1940
21	830	1000	924	527	2130	2400	1750	2250	3070	1210	1150	2070
22	818	1000	925	525	2150	2380	1680	3460	3100	1170	1160	1940
23	795	1000	876	475	2120	2190	1930	3770	3140	1150	1230	1830
24	790	1000	824	503	2230	2170	1890	3600	3100	1120	1420	1830
25	812	1000	837	455	2310	1770	1980	3100	3000	1090	1360	1770
26	800	1000	845	478	2300	1530	2080	3040	2970	1080	1650	1790
27	868	1000	911	462	2300	1480	2130	3490	2890	1120	1590	1900
28	953	1000	885	551	2350	1490	2340	3580	2880	1200	1500	2030
29	952	1000	862	1330	---	1520	2790	3390	2840	1320	1490	1920
30	970	1100	898	1430	---	1390	2550	3360	2740	1330	1450	1910
31	985	---	905	1390	---	1470	---	3070	---	1310	1130	---
TOTAL	25363	23410	27221	27254	56470	67180	55550	99080	92040	49750	38500	50338
MEAN	850	780	878	879	2017	2167	1852	3196	3068	1605	1242	1678
MAX	1270	1440	1000	1430	2350	2530	2790	5240	3570	2820	1650	2130
MIN	570	395	806	455	1400	1390	1070	1640	2740	1080	1000	875
AC-FT	52290	46430	53990	54060	112000	133300	110200	196500	182600	98680	76360	99850

CAL YR 1981 TOTAL 359422 MEAN 985 MAX 2550 MIN 274 AC-FT 712900
WTR YR 1982 TOTAL 613156 MEAN 1680 MAX 5240 MIN 395 AC-FT 1216000

09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO

LOCATION.--Lat 38°11'02", long 107°44'43", in SW¼NE¼ sec.4, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft (5 m) upstream from bridge, 0.2 mi (0.3 km) downstream from Dry Creek, 0.5 mi (0.8 km) upstream from Dallas Creek, and 2.3 mi (3.7 km) north of Ridgway.

DRAINAGE AREA.--149 mi^2 (386 km^2).

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,877.58 ft (2,096.286 m), National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Diversions for irrigation above station. Water is imported above station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 156 ft^3/s (4.418 m^3/s), 113,000 acre-ft/yr (139 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft^3/s (53.5 m^3/s) Sept. 6, 1970, gage height, 5.38 ft (1.640 m); minimum daily, 26 ft^3/s (0.74 m^3/s) Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 28	0100	1,210	34.3	4.56	1.390	Aug. 24	0700	1,190	33.7	*4.59	1.399
July 26	1930	*1,220	34.6	4.58	1.396						

Minimum daily discharge, 36 ft^3/s (1.02 m^3/s) Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	83	48	47	46	59	54	205	515	854	312	220
2	61	89	52	44	46	75	51	303	506	716	315	193
3	88	89	54	44	44	71	51	322	502	675	312	172
4	71	89	55	44	44	61	56	303	510	660	279	165
5	91	86	56	47	42	59	59	312	535	595	252	181
6	89	83	56	47	39	55	55	205	478	506	234	154
7	83	89	56	44	40	52	54	163	442	482	237	163
8	89	91	54	42	38	49	48	150	470	446	237	186
9	86	83	54	42	36	51	48	152	520	478	231	193
10	81	78	54	46	38	54	47	163	560	478	225	181
11	83	78	54	46	39	54	50	178	580	486	222	212
12	92	74	52	47	39	71	98	190	610	470	218	326
13	88	74	52	46	40	60	116	202	700	470	218	294
14	91	71	49	44	39	60	145	202	600	454	243	300
15	98	70	51	46	39	58	161	176	585	466	215	267
16	116	68	52	44	40	54	147	165	580	446	215	246
17	98	67	50	44	41	52	124	176	700	442	212	240
18	91	63	50	46	40	50	136	198	746	438	210	267
19	88	56	50	44	41	48	143	240	640	414	205	249
20	84	56	52	43	43	48	124	225	590	410	269	255
21	81	60	52	42	47	42	101	282	675	398	254	243
22	78	59	48	41	54	41	99	306	635	370	303	222
23	77	59	47	40	55	42	103	315	645	358	394	208
24	77	56	44	42	54	43	101	332	734	358	699	195
25	78	56	43	42	55	47	98	326	872	362	565	186
26	80	54	43	46	54	50	99	366	920	454	510	193
27	80	54	44	50	54	50	92	466	999	402	442	188
28	78	55	44	47	56	49	112	478	992	378	426	190
29	77	58	46	47	---	51	152	540	890	426	340	178
30	78	56	48	46	---	49	165	540	740	386	297	176
31	78	---	48	46	---	49	---	486	---	346	255	---
TOTAL	2586	2104	1558	1386	1243	1654	2889	8667	19471	14624	9346	6443
MEAN	83.4	70.1	50.3	44.7	44.4	53.4	96.3	280	649	472	301	215
MAX	116	91	56	50	56	75	165	540	999	854	699	326
MIN	56	54	43	40	36	41	47	150	442	346	205	154
AC-FT	5130	4170	3090	2750	2470	3280	5730	17190	38620	29010	18540	12780

CAL YR 1981 TOTAL 41836 MEAN 115 MAX 665 MIN 28 AC-FT 82980
WTR YR 1982 TOTAL 71971 MEAN 197 MAX 999 MIN 36 AC-FT 142800

09147000 DALLAS CREEK NEAR RIDGWAY, CO

LOCATION.--Lat 38°10'40", long 107°45'28", on line between sec.4 and 5, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 25 ft (7.62 m) downstream from county bridge, 1.5 mi (2.4 km) upstream from mouth, and 15 mi (2.4 km) northwest of Ridgway.

DRAINAGE AREA.--96.2 mi² (249.2 km²).

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to September 1971, October 1979 to current year.

REVISED RECORDS.--WSP 1924: 1960: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,980 ft (2,128 m), from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 4,500 acres (18.2 km²) above and 700 acres (2.83 km²) below station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 36.7 ft³/s (1.039 m³/s), 26,590 acre-ft/yr (32.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,120 ft³/s (31.7 m³/s) Aug. 15, 1923, gage height, 4.40 ft (1.341 m) datum then in use, from rating curve extended above 160 ft³/s (4.53 m³/s); maximum gage height, 5.14 ft (1.567 m) Jan. 31, 1963 (backwater from ice); minimum daily discharge, 0.21 ft³/s (0.006 m³/s) June 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 436 ft³/s (12.3 m³/s) at 2100 Aug. 22, gage height, 4.92 ft (1.500 m); minimum daily, 7.2 ft³/s (0.20 m³/s) June 4-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	25	20	18	19	19	21	100	8.5	101	123	107
2	31	26	21	17	19	28	18	100	7.9	87	128	99
3	40	26	24	18	19	23	16	112	7.6	89	128	94
4	33	25	24	18	18	19	21	101	7.2	95	108	93
5	40	24	20	18	18	17	21	171	7.2	84	93	97
6	35	24	21	18	17	17	18	80	7.2	67	80	87
7	32	27	21	18	16	17	18	58	7.2	64	77	85
8	34	27	21	17	15	18	17	55	7.2	57	79	104
9	33	25	21	18	14	19	17	49	7.2	60	75	99
10	31	24	17	18	15	20	18	40	7.2	63	72	92
11	30	23	17	18	15	22	24	33	7.8	67	81	96
12	30	23	17	18	15	51	54	38	9.3	65	92	123
13	29	23	16	18	15	27	57	62	15	71	97	117
14	29	23	17	19	15	28	73	69	14	62	115	113
15	30	23	17	18	15	23	92	127	13	61	99	97
16	36	23	17	18	15	19	93	148	13	53	92	87
17	31	23	17	19	15	19	81	88	22	54	95	85
18	30	22	17	19	15	19	93	54	54	60	102	87
19	30	19	17	19	15	17	92	46	68	51	95	93
20	29	21	18	19	15	15	60	40	57	50	91	89
21	29	22	17	19	15	13	50	34	57	48	88	91
22	27	21	17	19	17	15	56	32	57	56	127	83
23	27	21	17	18	17	16	60	27	61	67	220	77
24	27	20	17	18	18	15	59	23	66	80	296	74
25	27	20	16	18	19	17	82	27	74	88	241	71
26	27	18	17	18	19	18	100	22	80	77	207	75
27	27	20	17	19	20	17	101	23	107	73	208	80
28	27	21	18	18	20	19	115	21	113	122	195	83
29	27	20	18	18	---	18	137	15	113	186	156	70
30	27	18	18	19	---	14	102	16	102	165	136	66
31	26	---	19	19	---	20	---	13	---	141	121	---
TOTAL	939	677	571	566	465	619	1766	1824	1177.5	2464	3917	2714
MEAN	30.3	22.6	18.4	18.3	16.6	20.0	58.9	58.8	39.3	79.5	126	90.5
MAX	40	27	24	19	20	51	137	171	113	186	296	123
MIN	26	18	16	17	14	13	16	13	7.2	48	72	66
AC-FT	1860	1340	1130	1120	922	1230	3500	3620	2340	4890	7770	5380

CAL YR 1981 TOTAL 7944.43 MEAN 21.8 MAX 168 MIN .21 AC-FT 15760
WTR YR 1982 TOTAL 17699.50 MEAN 48.5 MAX 296 MIN 7.2 AC-FT 35110

09147500 UNCOMPAHGRE RIVER AT COLONA, CO

LOCATION.--Lat 38°19'53", long 107°46'44", in NW¼NW¼ sec.17, T.47 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft (5 m) downstream from county highway bridge, 0.2 mi (0.3 km) north of Colona, and 1.0 mi (1.6 km) upstream from Beaton Creek.

DRAINAGE AREA.--443 mi^2 (1,147 km^2).

PERIOD OF RECORD.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Colona" 1904-6, 1922-34.

REVISED RECORDS.--WSP 1313: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,318.00 ft (1,925.970 m), National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records fair. Natural flow of stream affected by water diverted from West Fork Cimarron Creek, Mineral Creek (San Juan River basin), and Leopard Creek (Dolores River basin), diversions for irrigation of about 19,000 acres or 76.9 km^2 (part of which is below station), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--72 years (water years 1904-5, 1913-82), 262 ft^3/s (7.420 m^3/s), 189,800 acre-ft/yr (234 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,080 ft^3/s (116 m^3/s) June 13, 14, 1921; minimum daily, 12 ft^3/s (0.34 m^3/s) Sept. 19, 1956, May 7, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft^3/s (66.3 m^3/s) at 1030 Aug. 24, gage height, 4.94 ft (1.506 m), from peak stage indicator; minimum daily, 55 ft^3/s (1.56 m^3/s) Feb. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	136	75	74	77	122	95	417	633	1480	572	377
2	75	149	77	75	74	155	85	547	678	1390	590	288
3	123	157	89	70	70	151	74	651	664	1290	616	245
4	98	156	88	63	71	119	88	626	640	1260	500	234
5	125	145	91	64	63	106	105	732	719	1160	410	268
6	129	146	93	65	58	90	94	482	632	966	356	225
7	115	158	95	70	58	86	86	375	550	882	351	214
8	120	162	92	68	58	89	75	348	586	781	380	265
9	128	145	86	66	58	90	79	346	666	814	361	246
10	119	134	86	64	59	98	71	339	787	809	328	212
11	115	135	89	66	59	99	89	359	779	817	374	212
12	131	129	85	68	59	161	202	397	855	766	368	653
13	133	131	84	68	59	134	268	430	1010	777	358	565
14	127	133	77	71	55	128	321	445	910	717	492	613
15	139	128	83	76	58	125	370	436	873	707	372	527
16	190	129	83	85	60	99	349	468	855	655	367	429
17	153	118	75	82	62	98	301	461	1040	624	365	338
18	143	118	68	83	61	94	316	434	1130	623	355	428
19	140	95	85	85	63	87	344	469	864	566	324	446
20	134	92	89	85	68	80	286	428	660	543	335	416
21	130	108	87	85	72	71	217	477	654	493	309	444
22	131	109	76	78	81	73	205	511	628	446	490	338
23	130	103	65	76	90	74	233	504	641	449	866	327
24	133	98	60	72	86	78	214	507	667	468	1550	326
25	135	97	65	74	98	86	231	479	990	490	1410	291
26	140	87	71	76	96	93	249	480	864	551	1380	322
27	145	87	75	76	117	87	223	625	1000	657	1080	318
28	132	93	75	80	118	85	274	606	1300	651	1050	316
29	140	96	73	78	---	94	397	704	1300	797	781	260
30	143	88	74	79	---	76	378	740	1290	743	628	258
31	129	---	74	77	---	74	---	614	---	645	506	---
TOTAL	3995	3662	2485	2299	2008	3102	6319	15437	24865	24017	18224	10401
MEAN	129	122	80.2	74.2	71.7	100	211	498	829	775	588	347
MAX	190	162	95	85	118	161	397	740	1300	1480	1550	653
MIN	70	87	60	63	55	71	71	339	550	446	309	212
AC-FT	7920	7260	4930	4560	3980	6150	12530	30620	49320	47640	36150	20630

CAL YR 1981 TOTAL 55833 MEAN 153 MAX 1030 MIN 27 AC-FT 110700
WTR YR 1982 TOTAL 116814 MEAN 320 MAX 1550 MIN 55 AC-FT 231700

09149500 UNCOMPAHGRE RIVER AT DELTA, CO

LOCATION.--Lat 38°44'31", long 108°04'49", in SW¼SW¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020006, on right bank 525 ft (160 m) downstream from 5th Street Bridge at west edge of Delta and 1.1 mi (1.8 km) upstream from mouth.

DRAINAGE AREA.--1,129 mi^2 (2,924 km^2).

PERIOD OF RECORD.--April 1903 to October 1931 (no winter records in most years). September 1938 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24.

REVISED RECORDS.--WSP 1243: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,926.49 ft (1,501.594 m), National Geodetic Vertical Datum of 1929. Feb. 18, 1960, to Mar. 26, 1963, water-stage recorder at site 750 ft (230 m) upstream at datum 3.43 ft (1.045 m) higher. Mar. 27, 1963, to May 12, 1965, water-stage recorder at site 1,050 ft (320 m) upstream at datum 6.08 ft (1.045 m) higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

REMARKS.--Records good. Natural flow of stream affected by water diverted from Gunnison River (see record of diversion through Gunnison tunnel published with station 09128000) and other adjacent basins, diversions for irrigation of about 90,000 acres (364 km^2) above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--46 years (water years 1908, 1921, 1939-82), 278 ft^3/s (7.873 m^3/s), 201,400 acre-ft/yr (248 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 3,730 ft^3/s (106 m^3/s) May 5, 1941, gage height, 5.90 ft (1.798 m), site and datum then in use, from rating curve extended above 1,900 ft^3/s (54 m^3/s); no flow at times in 1908; minimum daily determined since beginning of diversion through Gunnison tunnel, 7 ft^3/s (0.20 m^3/s) July 10-15, 17, 21, 24-28, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft^3/s (45.0 m^3/s) at 2000 Aug. 24, gage height, 5.49 ft (1.673 m); minimum daily 106 ft^3/s (3.00 m^3/s) Mar. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	512	204	156	400	149	252	434	470	695	437	460
2	219	518	195	148	342	153	308	600	456	638	436	380
3	325	540	200	132	175	194	287	791	429	495	510	351
4	337	513	205	110	148	209	280	846	383	488	517	340
5	413	512	204	138	150	202	279	952	428	441	417	440
6	407	500	202	147	118	188	301	512	385	320	313	458
7	402	490	198	117	126	161	244	468	320	303	307	439
8	405	511	190	117	140	156	198	355	310	393	314	549
9	387	500	185	125	125	154	191	357	402	450	352	597
10	363	538	185	127	145	153	207	363	512	444	348	588
11	354	436	188	132	142	158	161	333	429	449	397	582
12	380	300	182	135	132	155	201	405	434	448	414	838
13	422	241	180	137	127	196	416	669	561	371	428	922
14	448	234	175	131	142	196	280	653	541	353	546	1020
15	461	232	166	130	141	190	224	661	415	317	557	964
16	574	226	178	133	138	176	231	658	344	318	507	914
17	537	221	161	132	142	139	312	628	393	290	479	859
18	493	216	135	130	170	132	307	441	565	305	434	839
19	497	218	150	137	165	127	353	421	601	320	400	910
20	518	212	162	144	152	110	324	403	508	249	450	938
21	528	211	162	345	154	106	274	357	515	234	480	892
22	519	211	161	334	160	106	223	380	521	208	500	845
23	519	211	134	377	156	163	223	392	494	203	700	793
24	529	209	109	377	155	233	205	429	536	215	970	781
25	527	205	142	389	160	213	169	340	629	232	1170	772
26	564	205	141	367	162	229	208	285	660	251	1190	761
27	544	202	154	397	151	219	269	377	790	375	987	764
28	439	202	135	388	148	214	299	410	864	762	967	764
29	436	204	132	397	---	236	437	524	761	714	824	729
30	489	210	146	408	---	318	462	596	665	694	664	726
31	519	---	159	393	---	259	---	537	---	511	584	---
TOTAL	13759	9740	5220	6830	4566	5594	8125	15577	15321	12486	17599	21215
MEAN	444	325	168	220	163	180	271	502	511	403	568	707
MAX	574	540	205	408	400	318	462	952	864	762	1190	1020
MIN	204	202	109	110	118	106	161	285	310	203	307	340
AC-FT	27290	19320	10350	13550	9060	11100	16120	30900	30390	24770	34910	42080

CAL YR 1981 TOTAL 84999 MEAN 233 MAX 898 MIN 58 AC-FT 168600
WTR YR 1982 TOTAL 136032 MEAN 373 MAX 1190 MIN 106 AC-FT 269800

09150500 ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO

LOCATION.--Lat 38°44'06", long 108°09'40", in SE¼NE¼ sec.19, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank 90 ft (27 m) upstream from railroad bridge, 0.3 mi (0.5 km) upstream from mouth, and 5.0 mi (8.0 km) west of Delta.

DRAINAGE AREA.--242 mi^2 (627 km^2).

PERIOD OF RECORD.--October 1938 to September 1954, May 1976 to current year. Prior to April 1939, monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,864.34 ft (1,482.651 m), National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1948, at site 0.2 mi (0.3 km) upstream at datum 4.86 ft (1.481 m) higher.

REMARKS.--Records good except those for winter period, which are fair. Part of discharge is return flow from lands irrigated under lower end of Ironstone Canal from Uncompahgre River. Diversions for irrigation of a few hundred acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years (water years 1939-54, 1977-82), 121 ft^3/s (3.427 m^3/s), 87,660 acre-ft/yr (108 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft^3/s (83.5 m^3/s) Aug. 5, 1945, gage height, 7.76 ft (2.365 m), site and datum then in use, from rating curve extended above 1,300 ft^3/s (37 m^3/s); minimum observed, 9.6 ft^3/s (0.27 m^3/s) Apr. 7, 1977 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) at 0900 May 4, gage height, 5.56 ft (1.695 m); only peak above base of 810 ft^3/s (23 m^3/s); minimum daily, 22 ft^3/s (0.623 m^3/s) Dec. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	79	36	30	33	35	77	540	414	55	84	128
2	75	77	35	28	36	37	98	700	384	53	151	113
3	91	79	29	26	32	43	89	958	348	48	156	112
4	107	72	27	24	28	44	74	1380	300	53	165	125
5	134	58	28	28	28	39	76	1340	276	51	92	178
6	134	51	28	29	24	35	60	991	254	47	84	189
7	128	48	27	24	26	33	59	750	224	35	72	198
8	133	47	26	24	28	35	65	693	180	47	81	185
9	140	47	26	26	26	36	62	710	171	56	78	182
10	139	47	26	26	28	35	56	587	171	60	58	159
11	141	45	26	26	28	34	55	528	171	68	60	168
12	172	40	26	28	28	66	86	484	168	81	73	149
13	144	37	26	28	26	62	187	471	159	48	186	180
14	127	38	26	26	28	51	260	407	171	57	175	165
15	125	38	28	26	29	49	308	379	159	53	167	145
16	204	38	29	26	28	47	345	368	138	50	142	137
17	125	38	29	24	33	44	314	373	118	45	129	126
18	111	38	29	24	33	42	323	408	126	47	133	130
19	104	37	30	26	28	40	357	513	150	47	113	165
20	102	37	31	26	28	39	324	610	180	44	69	173
21	97	37	30	25	28	36	268	569	156	48	57	127
22	93	36	30	25	29	35	248	635	141	36	64	120
23	93	35	26	29	35	34	251	653	132	36	68	121
24	95	34	22	35	37	35	244	595	123	42	69	114
25	95	34	24	34	40	44	229	544	92	52	97	111
26	86	36	28	32	40	87	243	559	72	65	147	108
27	70	36	30	33	36	89	286	604	66	64	146	105
28	64	36	28	32	35	93	338	547	73	63	140	123
29	71	36	26	34	---	93	495	554	51	123	145	122
30	84	36	27	32	---	75	515	521	54	89	148	124
31	84	---	29	32	---	75	---	443	---	86	138	---
TOTAL	3440	1347	868	868	858	1542	6392	19414	5222	1749	3487	4282
MEAN	111	44.9	28.0	28.0	30.6	49.7	213	626	174	56.4	112	143
MAX	204	79	36	35	40	93	515	1380	414	123	186	198
MIN	64	34	22	24	24	33	55	368	51	35	57	105
AC-FT	6820	2670	1720	1720	1700	3060	12680	38510	10360	3470	6920	8490

CAL YR 1981 TOTAL 27252 MEAN 74.7 MAX 336 MIN 20 AC-FT 54050
WTR YR 1982 TOTAL 49469 MEAN 136 MAX 1380 MIN 22 AC-FT 98120

09151500 ESCALANTE CREEK NEAR DELTA, CO

LOCATION.--Lat 38°45'24", long 108°15'34", in E½ sec.8, T.15 S., R.97 W., Sixth Principal Meridian, Delta County, Hydrologic Unit 14020005, on left bank just upstream from county bridge, 0.2 mi (0.3 km) upstream from mouth, and 10.5 mi (16.9 km) west of Delta.

DRAINAGE AREA.--209 mi² (541 km²).

PERIOD OF RECORD.--April 1922 to September 1923, May 1976 to current year.

REVISED RECORDS.--WSP 1313: 1923 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 4,810 ft (1,463 m), from topographic map. Prior to September 1923, nonrecording gage at different datum operated by State Engineer of Colorado.

REMARKS.--Records good, except those for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 52.5 ft³/s (1.487 m³/s), 38,040 acre-ft/yr (46.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft³/s (58.1 m³/s) July 24, 1977, gage height, 8.54 ft (2.603 m), from floodmarks, from rating curve extended above 320 ft³/s (9.1 m³/s), on basis of slope-area measurement of peak flow; no flow June 23-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft³/s (28.6 m³/s) at 0900 May 3, gage height, 6.27 ft (1.911 m); minimum daily, 0.69 ft³/s (0.020 m³/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	25	12	12	16	28	30	550	139	4.0	3.3	3.8
2	4.5	25	11	11	16	30	29	618	122	5.0	3.1	3.4
3	4.6	25	12	11	16	30	27	813	111	3.4	4.7	2.8
4	28	23	12	11	16	30	29	625	100	3.4	2.3	2.5
5	175	23	13	11	15	28	32	615	90	3.1	2.1	3.8
6	58	22	12	12	15	26	33	486	82	3.1	2.0	4.2
7	42	23	13	11	15	26	34	403	73	2.7	1.8	3.3
8	38	22	13	11	14	24	30	376	70	2.9	1.6	3.1
9	36	22	13	11	14	22	32	371	63	2.8	3.5	3.1
10	33	22	12	11	14	26	30	336	57	2.9	2.4	4.1
11	32	20	12	12	14	26	35	306	52	2.5	2.3	5.1
12	43	20	12	12	14	32	88	288	46	2.2	2.5	13
13	48	19	12	13	14	30	167	304	40	2.1	3.4	19
14	54	18	11	13	14	28	231	280	36	2.2	3.6	33
15	51	18	11	14	15	28	294	282	32	1.9	2.2	18
16	97	18	10	14	15	28	300	271	28	1.8	2.1	13
17	61	17	8.9	13	15	28	273	259	24	1.6	2.2	11
18	50	17	12	13	15	26	309	270	20	1.5	2.2	11
19	47	16	12	13	16	26	347	294	18	1.6	2.3	19
20	43	14	12	14	16	26	279	309	16	1.4	2.3	24
21	40	14	12	14	16	24	213	313	14	1.4	2.6	16
22	38	15	12	13	18	24	207	313	12	1.1	2.6	13
23	35	15	12	13	22	25	248	303	11	1.1	2.8	12
24	34	14	12	13	22	26	204	305	9.5	.97	2.9	12
25	33	15	11	13	22	26	284	281	8.0	.84	2.8	11
26	31	14	11	13	22	28	344	273	7.0	.69	5.9	11
27	30	12	10	14	22	28	382	261	6.5	3.7	6.2	13
28	29	14	10	15	24	27	455	229	5.7	8.3	9.1	41
29	28	16	11	16	---	30	529	211	5.5	4.6	8.1	29
30	29	15	11	16	---	29	494	183	4.4	7.2	5.7	33
31	28	---	12	16	---	26	---	156	---	8.4	4.7	---
TOTAL	1304.9	553	359.9	399	467	841	5989	10884	1302.6	90.40	105.3	391.2
MEAN	42.1	18.4	11.6	12.9	16.7	27.1	200	351	43.4	2.92	3.40	13.0
MAX	175	25	13	16	24	32	529	813	139	8.4	9.1	41
MIN	4.5	12	8.9	11	14	22	27	156	4.4	.69	1.6	2.5
AC-FT	2590	1100	714	791	926	1670	11880	21590	2580	179	209	776

CAL YR 1981 TOTAL 6538.89 MEAN 17.9 MAX 175 MIN .00 AC-FT 12970
WTR YR 1982 TOTAL 22687.30 MEAN 62.2 MAX 813 MIN .69 AC-FT 45000

NOTE.--NO GAGE-HEIGHT RECORD JAN. 25 TO MAR. 22.

09152000 KANNAH CREEK NEAR WHITEWATER, CO

LOCATION.--Lat 38°57'42", long 108°13'47", in NW¼SW¼ sec.34, T.12 S., R.97 W., Mesa County, Hydrologic Unit 14020005, on right bank at downstream side of county bridge, 0.2 mi (0.3 km) downstream from intake of pipeline for Grand Junction water supply, and 12 mi (19 km) east of Whitewater.

DRAINAGE AREA.--61.9 mi² (160.3 km²).

PERIOD OF RECORD.--October 1917 to September 1921, September 1922 to September 1982 (discontinued). Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Kahnah Creek near Whitewater.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,060 ft (1,847 m), from topographic map. Prior to Sept. 30, 1932, nonrecording gage, and Sept. 30, 1932, to Oct. 14, 1935, water-stage recorder, at site 300 ft (91 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Diversion above station for municipal supply of Grand Junction and minor diversion by Raber ditch for irrigation of about 60 acres (243,000 m²) below station. Records of municipal supply furnished by Colorado Division of Water Resources and monthly figures are adjusted to show total flow of stream. Daily figures are for stream below city and Raber ditch diversions. Regulation by a few small reservoirs above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE (COMBINED FLOW).--64 years (water years 1918-21, 1923-82), 37.6 ft³/s (1.065 m³/s), 27,240 acre-ft/yr (33.6 hm³/yr).

EXTREMES (COMBINED FLOW) FOR PERIOD OF RECORD.--Maximum discharge observed, 1,640 ft³/s (46.4 m³/s) June 6, 1921, gage height, 4.5 ft (1.37 m), site and datum then in use, from rating curve extended above 700 ft³/s (20 m³/s); minimum daily, 3.3 ft³/s (0.093 m³/s) Jan. 9, 1981.

EXTREMES (COMBINED FLOW) FOR CURRENT YEAR.--Maximum discharge, 533 ft³/s (15.1 m³/s) at 2100 May 28, gage height, 2.53 ft (0.771 m); minimum daily, 8.0 ft³/s (0.23 m³/s) Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	7.5	3.0	3.8	2.2	2.5	4.0	23	275	46	16	16
2	17	9.1	2.8	2.5	2.2	3.2	3.2	28	250	37	18	17
3	16	20	2.6	2.4	2.2	3.5	2.3	42	228	33	17	14
4	20	18	2.8	2.4	2.0	3.8	3.0	80	250	31	16	14
5	21	15	3.0	2.4	2.0	3.0	2.5	98	224	28	14	14
6	21	14	3.0	2.5	2.0	2.4	3.2	95	206	28	22	14
7	21	12	3.5	2.5	2.0	1.8	3.2	90	206	27	22	16
8	21	10	3.5	2.5	2.0	1.6	3.2	102	219	27	21	17
9	16	8.3	3.2	2.5	1.9	1.6	2.3	108	206	27	21	18
10	10	7.0	3.5	2.5	1.9	1.7	2.3	90	198	26	20	20
11	12	7.0	3.5	2.5	1.9	2.0	4.3	58	170	24	20	21
12	14	6.2	3.5	2.8	1.9	3.5	7.0	41	178	24	19	22
13	15	6.2	3.5	2.8	1.8	3.2	13	36	142	24	20	23
14	16	5.8	2.0	2.8	1.8	3.8	16	36	123	23	21	22
15	22	5.4	2.2	2.8	1.8	3.4	18	37	138	21	20	22
16	21	4.6	2.0	3.0	1.8	3.2	17	46	142	19	20	21
17	21	4.3	1.9	2.8	1.7	3.0	16	55	129	18	20	21
18	21	4.0	1.8	2.8	1.7	3.0	18	85	138	18	19	21
19	20	4.6	1.8	2.5	1.7	2.8	18	80	135	17	18	19
20	15	5.8	2.0	2.5	1.8	2.3	15	60	146	16	18	17
21	12	4.3	2.0	2.5	2.2	2.6	12	75	95	14	19	16
22	9.7	2.8	2.3	2.5	3.0	2.6	12	105	85	14	18	20
23	7.9	2.3	2.2	2.5	2.8	2.8	14	160	78	14	18	24
24	7.9	2.3	2.2	2.5	2.8	2.8	14	194	65	15	19	22
25	7.9	3.0	2.2	2.5	2.8	2.6	14	210	55	15	19	33
26	7.0	3.0	2.4	2.8	2.5	2.8	16	246	55	18	20	34
27	7.0	2.8	2.4	2.5	2.8	3.2	19	327	58	23	20	30
28	8.7	2.6	2.6	2.8	2.8	3.2	21	344	62	23	19	26
29	9.1	2.6	2.6	3.0	---	3.8	22	322	50	20	19	23
30	12	2.4	2.8	2.8	---	3.0	22	246	46	19	18	22
31	10	---	3.0	2.3	---	3.0	---	206	---	18	16	---
TOTAL	455.2	202.9	81.8	82.0	60.0	88.4	337.5	3725	4352	707	587	619
MEAN	14.7	6.76	2.64	2.65	2.14	2.85	11.3	120	145	22.8	18.9	20.6
MAX	22	20	3.5	3.8	3.0	3.8	22	344	275	46	22	34
MIN	7.0	2.3	1.8	2.3	1.7	1.6	2.3	23	46	14	14	14
AC-FT	903	402	162	163	119	175	669	7390	8630	1400	1160	1230

ADJUSTED FOR DIVERSION

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	21.9	15.9	10.9	10.3	9.94	10.3	19.2	128	153	30.9	26.8	28.3
AC-FT	1350	945	673	632	552	636	1140	7850	9110	1900	1650	1680

			OBSERVED				ADJUSTED	
CAL YR 1981	TOTAL	5,848.56	MEAN 16.0	MAX 270	MIN .40	AC-FT 11,600	MEAN 23.0	AC-FT 13,100
WTR YR 1982	TOTAL	11,297.80	MEAN 31.0	MAX 344	MIN 1.6	AC-FT 22,410	MEAN 38.8	AC-FT 28,120

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO

LOCATION.--Lat 38°59'00", long 108°27'00", in NE¼SW¼ of sec.14, T.2 S., R.1 E., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 180 ft (55 m) upstream from bridge on State Highway 141, 0.4 mi (0.6 km) downstream from Whitewater Creek, 0.5 mi (0.8 km) south of Whitewater, and 8 mi (13 km) southeast of Grand Junction.

DRAINAGE AREA.--7,928 mi² (20,534 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Whitewater" 1901-6.

REVISED RECORDS.--WSP 509: Drainage area at former site. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,628.12 ft (1,410.651 m), National Geodetic Vertical Datum of 1929. See WSP 1733 or 1924 for history of changes prior to October 1959.

REMARKS.--Records good. Records show flow that enters Colorado River from Gunnison River basin except for about 60 ft³/s (1.7 m³/s) diverted below gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres (943 km²) above station, storage reservoirs, and return flow from irrigated lands.

AVERAGE DISCHARGE.--74 years (water years 1897-99, 1902-06, 1917-82), 2,520 ft³/s (71.37 m³/s), 1,826,000 acre-ft/yr (2,250 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,700 ft³/s (1,010 m³/s) May 23, 1920, gage height, 14.95 ft (4.557 m), site and datum then in use, from rating curve extended above 22,000 ft³/s (623 m³/s); minimum daily, 106 ft³/s (3.00 m³/s) July 20, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,460 ft³/s (240 m³/s) at 1600 May 5, gage height, 7.44 ft (2.268 m); minimum daily, 753 ft³/s (21.3 m³/s) Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	926	1750	1390	1180	1730	2380	1690	4820	4650	3630	1780	1720
2	951	1740	1310	1170	1800	2430	1740	5590	4570	3690	1730	1510
3	1180	1590	1200	1090	1810	2570	1700	6660	4440	3240	1890	1400
4	1460	1190	1230	1030	1700	2640	1640	7700	4420	3030	1890	1460
5	2430	1130	1230	1120	1730	2520	1680	7960	4540	2900	1740	1680
6	1780	1280	1230	1080	1670	2350	1680	7260	4650	2670	1660	1880
7	1580	1260	1220	1020	1690	2230	1620	6060	4330	2380	1430	1800
8	1530	1300	1220	876	1720	2240	1490	5430	4020	2130	1440	2000
9	1580	1270	1210	1200	1930	2010	1330	5250	4010	2060	1580	2290
10	1610	1280	1170	1290	2030	2230	1310	5020	4100	2080	1630	2380
11	1580	1240	1140	1450	2050	2250	1280	4760	4050	2030	1630	2550
12	1640	989	1130	1380	2100	2420	1540	4690	3960	1990	1660	2880
13	1720	840	1210	1370	2070	2750	3010	5250	4070	1860	1660	3510
14	1710	786	1190	1430	2110	2640	3400	4890	4080	1800	2170	3690
15	1730	759	1130	1570	2130	2590	3730	4580	4170	1770	2050	3490
16	2400	753	1150	1790	2140	2560	3740	3730	4060	1740	1930	3330
17	1950	1070	1170	1810	2160	2420	3270	3360	3910	1650	1900	3160
18	1800	1570	1110	1840	2220	2370	3240	3280	4310	1640	1850	3100
19	1730	1410	1090	1840	2190	2390	3620	3380	4890	1700	1820	3130
20	1740	1380	1150	1380	2190	2430	3260	3560	4640	1570	1690	3260
21	1720	1330	1220	896	2160	2410	2720	3560	4220	1470	1580	3350
22	1690	1390	1210	966	2180	2390	2380	4910	4110	1340	1720	3170
23	1670	1390	1150	920	2150	2200	2520	5490	4120	1310	1910	2960
24	1660	1370	1040	1010	2220	2290	2620	5540	4060	1310	2130	2830
25	1670	1360	1070	974	2310	2000	2640	4800	4000	1360	2840	2810
26	1680	1340	1120	976	2360	1780	2870	4610	3920	1400	3090	2740
27	1680	1370	1160	944	2300	1730	3140	5060	3950	1460	2930	2810
28	1720	1350	1170	996	2330	1710	3590	5430	4060	1970	2710	3180
29	1650	1370	1150	1450	---	1730	4370	5410	3950	2110	2600	3030
30	1730	1410	1140	1790	---	1790	4410	5340	3660	2160	2380	2910
31	1790	---	1180	1740	---	1680	---	4920	---	2000	2030	---
TOTAL	51687	38267	36490	39578	57180	70130	77230	158300	125920	63450	61050	80010
MEAN	1667	1276	1177	1277	2042	2262	2574	5106	4197	2047	1969	2667
MAX	2430	1750	1390	1840	2360	2750	4410	7960	4890	3690	3090	3690
MIN	926	753	1040	876	1670	1680	1280	3280	3660	1310	1430	1400
AC-FT	102500	75900	72380	78500	113400	139100	153200	314000	249800	125900	121100	158700

CAL YR 1981 TOTAL 481157 MEAN 1318 MAX 3710 MIN 483 AC-FT 954400
WTR YR 1982 TOTAL 859292 MEAN 2354 MAX 7960 MIN 753 AC-FT 1704000

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1931 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1935 to September 1974, September 1975 to current year.
WATER TEMPERATURES: April 1949 to September 1974, September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,000 micromhos on several days during July and September 1974; minimum, 194 micromhos June 6, 1979.
WATER TEMPERATURES: Maximum, 30.0°C Aug. 13, 1958; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,930 micromhos Oct. 19; minimum, 397 micromhos May 5.
WATER TEMPERATURES: Maximum, 24.5°C several days during July; minimum, 0.0°C Nov. 21, Feb. 2.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (NTU)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARDNESS (MG/L AS CACO3)
NOV 18...	1200	1560	941	1010	8.1	6.0	17	8.9	110	K28	360
JAN 25...	1400	973	1020	1090	8.7	.5	8.6	11.3	K1	K7	440
MAR 23...	1300	2150	560	540	8.5	6.0	18	9.2	< 1	43	230
MAY 26...	1300	4580	500	542	8.4	13.0	74	8.1	280	710	210
JUL 15...	1100	1720	947	942	8.4	19.0	28	7.4	--	--	400
SEP 07...	1500	1790	1173	1230	8.7	20.5	31	7.1	--	--	530

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)
NOV 18...	90	34	58	1.4	3.2	140	310	8.2	.4	11	687
JAN 25...	110	40	71	1.6	3.5	170	400	11	.4	13	787
MAR 23...	57	22	37	1.1	2.5	130	180	5.8	.3	10	404
MAY 26...	56	18	27	.9	2.6	98	160	6.2	.2	12	364
JUL 15...	110	31	54	1.3	3.1	135	360	7.4	.4	15	676
SEP 07...	140	44	76	1.5	4.1	168	500	13	.5	17	968

K BASED ON NON-IDEAL COLONY COUNT.

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)
NOV											
18...	599	.93	2890	.88	.61	.020	.010	< .020	< 10	12	< 1
JAN											
25...	751	1.1	2070	1.2	.74	.020	.010	.020	--	--	--
MAR											
23...	393	.55	2350	.32	.52	.030	.010	< .010	8	11	< 1
MAY											
26...	341	.50	4500	.50	1.20	.170	.040	< .010	--	--	--
JUL											
15...	662	.92	3140	1.2	2.10	.080	.020	.020	7	9	< 1
SEP											
07...	896	1.3	4680	1.7	1.20	.110	.020	.020	< 3	7	< 1

DATE	TIME	ARSENIC TOTAL (UG/L, AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L , AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
NOV												
18...	1200	3	1	<100	41	1	< 1	< 10	< 10	2	< 3	10
MAR												
23...	1300	3	1	<100	59	< 1	< 1	< 10	< 10	< 1	< 1	18
JUL												
15...	1100	2	2	<100	52	< 1	< 1	10	10	6	< 1	7
SEP												
07...	1500	3	2	<100	50	< 1	< 1	10	< 10	< 1	< 1	8

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV												
18...	2	650	9	1	40	.1	< .1	10	9	< 1	20	< 3
MAR												
23...	1	1000	7	2	70	< .1	< .1	4	5	< 1	40	< 4
JUL												
15...	3	840	3	< 1	50	.2	< .1	6	7	< 1	20	30
SEP												
07...	2	1700	< 1	4	80	< .1	< .1	12	13	< 1	20	4

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
18...	1200	1560	222	935	--
JAN					
25...	1400	973	68	179	--
MAR					
23...	1300	2150	102	592	--
MAY					
26...	1300	4580	421	5210	53
JUL					
15...	1100	1720	143	664	82
SEP					
07...	1400	1790	142	686	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1400	1140	1040	---	719	782	720	465	600	688	1150	1090
2	1500	1100	---	---	720	730	705	461	605	689	1140	1170
3	1340	1040	---	---	667	690	738	424	613	692	1130	1220
4	1330	1140	---	---	628	740	746	416	625	703	1110	1240
5	1330	1310	---	---	655	816	706	408	632	724	1100	1190
6	1350	1310	---	---	661	843	672	414	639	728	1080	1200
7	1320	1200	---	---	650	857	665	421	640	733	1070	1200
8	1300	1200	---	---	659	858	666	424	645	753	1060	1170
9	1280	1200	---	---	657	860	669	425	646	802	1050	1030
10	1270	1180	---	---	609	877	682	440	653	861	1040	997
11	1240	1140	---	---	623	747	708	450	654	836	1030	975
12	1250	1140	---	---	616	653	710	464	658	802	1020	995
13	1260	1260	---	---	614	669	642	538	665	800	1040	954
14	1240	1360	---	---	614	667	595	570	665	824	1060	991
15	1210	1430	---	---	617	670	536	560	668	898	1070	1010
16	1180	1460	---	---	646	665	488	568	666	957	1060	989
17	1290	1460	---	---	661	662	504	611	666	960	1060	933
18	1550	1230	---	---	693	658	536	625	663	962	1060	894
19	1800	907	---	---	690	647	541	613	656	970	1060	890
20	1810	911	---	---	672	632	540	594	650	972	1040	898
21	1730	921	---	---	684	607	548	580	644	982	1060	901
22	1660	996	---	---	704	586	543	537	658	1020	1070	---
23	1590	1020	---	---	720	611	571	476	678	1040	1040	---
24	1530	1020	---	---	732	682	579	463	673	1050	1040	---
25	1480	1020	---	---	742	667	574	488	672	1090	978	---
26	1430	1030	---	---	752	708	543	513	667	981	970	---
27	1380	1030	---	---	765	751	517	543	652	1010	954	---
28	1320	1020	---	1140	773	755	519	560	677	1060	939	---
29	1270	1020	---	1100	---	731	517	573	675	1120	938	---
30	1220	1030	---	789	---	728	484	583	672	1140	964	---
31	1180	---	---	734	---	740	---	588	---	1150	967	---
MEAN	1390	1140			677	719	605	510	653	903	1040	

WTR YR 1982 MEAN 867 MAX 1810 MIN 408

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	15.5	8.5	8.0	2.5	.5	---	---	2.0	.5	6.5	5.5
2	16.5	15.5	9.0	8.0	---	---	---	---	2.0	.0	6.5	5.0
3	15.5	14.5	9.5	8.5	---	---	---	---	---	---	6.0	5.5
4	14.5	13.0	9.5	7.0	---	---	---	---	---	---	6.5	5.0
5	13.5	12.5	8.5	7.0	---	---	---	---	---	---	5.5	4.0
6	14.5	13.0	8.5	6.5	---	---	---	---	---	---	6.0	3.0
7	15.0	14.0	9.5	8.0	---	---	---	---	---	---	6.0	4.0
8	15.0	14.0	10.5	8.5	---	---	---	---	---	---	6.0	4.5
9	14.5	13.5	10.0	8.0	---	---	---	---	---	---	8.0	5.0
10	14.0	13.0	9.0	7.5	---	---	---	---	---	---	7.5	6.5
11	14.0	13.5	8.5	6.5	---	---	---	---	---	---	8.0	6.0
12	13.5	12.5	8.0	6.0	---	---	---	---	---	---	8.5	6.5
13	13.5	12.5	7.5	6.0	---	---	---	---	---	---	8.5	6.5
14	13.0	12.5	7.5	6.5	---	---	---	---	---	---	8.5	6.5
15	13.0	12.5	8.5	7.0	---	---	---	---	---	---	7.5	7.0
16	12.5	11.5	9.0	6.5	---	---	---	---	4.0	3.0	7.5	6.0
17	12.0	11.0	8.0	7.0	---	---	---	---	4.0	3.0	8.5	6.0
18	12.0	11.5	7.0	5.5	---	---	---	---	5.5	3.5	8.0	6.5
19	12.0	11.5	7.0	4.0	---	---	---	---	6.0	3.5	7.0	5.0
20	12.0	11.0	5.5	2.5	---	---	---	---	6.0	4.0	6.0	4.0
21	12.0	11.0	6.0	.0	---	---	---	---	7.5	4.0	6.0	4.0
22	12.0	11.0	7.0	3.0	---	---	---	---	6.5	4.5	6.5	4.0
23	11.5	10.5	7.0	4.5	---	---	---	---	6.0	5.0	7.5	4.5
24	11.0	10.5	9.0	4.0	---	---	---	---	5.5	4.0	8.0	5.5
25	10.5	9.5	7.0	4.5	---	---	---	---	7.0	4.5	9.0	6.0
26	10.0	9.0	6.5	1.5	---	---	---	---	7.0	5.0	8.5	7.5
27	10.0	9.5	5.0	1.5	---	---	---	---	7.5	5.0	9.0	7.0
28	10.0	9.5	3.0	2.0	---	---	3.5	2.0	8.0	5.5	11.0	8.0
29	10.5	9.5	4.5	3.0	---	---	3.0	2.0	---	---	10.0	8.0
30	10.0	9.5	4.5	2.0	---	---	3.0	1.0	---	---	8.5	6.5
31	9.5	8.5	---	---	---	---	3.0	1.0	---	---	8.5	5.0
MONTH	17.0	8.5	10.5	.0							11.0	3.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	6.5	12.5	10.5	15.5	13.0	19.5	18.0	24.0	20.0	22.0	18.5
2	9.0	6.5	12.0	11.5	15.0	13.5	19.0	17.0	22.0	20.5	21.5	18.5
3	9.0	5.5	12.5	11.5	16.5	14.0	19.5	17.0	22.5	19.5	21.5	18.0
4	10.5	7.0	11.5	10.0	16.0	14.0	20.0	17.5	23.0	19.5	21.0	18.5
5	9.0	7.0	11.0	10.0	15.5	13.5	18.5	16.5	24.0	20.0	20.5	18.0
6	10.0	7.5	10.0	9.5	14.5	12.5	18.5	15.5	24.0	20.0	20.5	18.0
7	12.0	8.0	10.0	9.0	15.5	12.5	19.5	16.5	24.5	20.5	20.0	17.5
8	9.0	6.0	12.0	9.5	16.0	13.0	19.0	17.5	23.5	21.5	19.5	17.5
9	9.0	5.5	11.5	10.5	17.5	13.0	21.5	17.5	23.5	20.5	18.5	17.0
10	10.0	6.0	11.0	10.0	16.5	14.0	22.5	18.5	22.5	20.5	19.0	17.0
11	11.0	7.5	11.0	10.0	17.5	14.5	22.0	18.5	21.5	19.5	17.5	16.0
12	13.5	9.5	10.0	9.0	17.5	15.5	23.0	18.5	21.5	19.5	17.0	15.5
13	13.0	11.0	9.5	8.0	16.5	15.0	22.5	19.5	21.0	19.5	15.5	13.5
14	12.5	9.5	11.0	8.0	16.5	14.0	23.0	19.0	22.0	19.5	13.0	12.0
15	10.5	9.5	12.0	11.0	17.5	15.0	22.5	19.0	22.5	20.0	14.5	12.0
16	10.0	8.0	13.5	11.0	18.0	15.0	22.5	18.5	22.5	19.5	16.5	14.0
17	10.0	8.0	15.5	12.5	18.0	16.5	22.0	19.0	22.5	20.0	17.5	15.5
18	10.5	8.5	16.0	14.0	17.5	16.0	23.0	19.5	22.5	19.5	16.5	15.5
19	9.5	7.5	14.5	12.5	16.5	15.5	23.5	19.5	23.0	20.0	16.0	15.0
20	7.5	6.0	14.0	12.0	17.0	14.5	24.5	20.0	23.5	20.0	17.0	15.0
21	9.0	5.5	15.0	13.0	17.5	16.0	24.5	21.0	24.0	21.0	17.5	15.5
22	11.0	7.0	14.5	13.5	18.0	16.0	24.5	21.0	23.5	20.5	---	---
23	11.5	9.5	14.5	13.0	18.0	16.5	24.5	21.5	22.0	20.5	---	---
24	12.0	10.0	13.5	12.5	18.0	15.5	24.0	21.5	22.5	20.0	---	---
25	13.0	10.5	14.0	12.5	19.0	17.0	24.5	21.0	20.5	18.0	---	---
26	12.0	11.0	15.0	13.0	18.5	16.0	24.5	21.0	19.5	17.0	---	---
27	12.0	10.5	15.5	14.0	19.5	17.0	24.5	21.5	20.0	18.0	---	---
28	12.0	10.5	14.5	13.0	20.0	19.0	23.0	21.0	19.5	18.0	---	---
29	12.0	10.5	14.0	12.5	19.5	18.0	24.0	20.0	20.0	17.5	---	---
30	11.0	10.0	14.0	12.5	19.5	18.0	24.0	20.0	21.0	18.0	---	---
31	---	---	14.0	11.5	---	---	24.0	20.0	21.0	18.5	---	---
MONTH	13.5	5.5	16.0	8.0	20.0	12.5	24.5	15.5	24.5	17.0		

09152600 ORCHARD MESA DRAIN AT GRAND JUNCTION, CO

LOCATION.--Lat 39°02'49", long 108°34'17", in NE¼NE¼ sec.27, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 350 ft (110 m) upstream from mouth and 1.6 mi (2.6 km) south of city hall in Grand Junction.

DRAINAGE AREA.--3.70 mi² (9.58 km²).

PERIOD OF RECORD.--April 1973 to current year. Water-quality data available, April 1973 to September 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,565 ft (1,391 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Orchard Mesa Canal imports water from the Colorado River into basin above station for irrigation. Flow is mostly waste water from canal and return flow from land irrigated under the canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1974-82), 7.70 ft³/s (0.218 m³/s), 5,580 acre-ft/yr (6.88 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s (1.19 m³/s) Aug. 8, 1977, gage height, 4.94 ft (1.506 m); maximum gage height, 4.95 ft (1.509 m) May 6, 1973; minimum daily discharge, 0.36 ft³/s (0.010 m³/s) Apr. 3, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s (0.68 m³/s) at 1100 May 7, gage height, 4.75 ft (1.448 m); minimum daily, 0.36 ft³/s (0.010 m³/s) Apr. 3, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	2.2	1.5	1.0	.64	1.0	.44	8.8	12	16	7.3	13
2	15	2.2	1.4	.98	.71	1.2	.40	10	9.4	14	7.8	13
3	9.8	2.2	1.4	1.0	.71	1.2	.36	14	11	14	13	12
4	14	2.3	1.3	1.0	.70	1.1	.40	14	13	15	14	15
5	13	2.3	1.4	.87	.70	1.0	.36	14	13	15	13	16
6	12	2.3	1.3	.82	.64	.93	.82	15	11	13	13	16
7	4.3	2.5	1.3	.90	.64	1.0	3.8	19	11	12	12	17
8	11	2.3	1.3	.90	.64	1.0	6.0	18	11	12	11	15
9	9.7	2.2	1.3	.90	.64	.97	8.0	18	12	14	12	15
10	11	2.2	1.3	.90	.64	1.0	12	16	12	14	11	14
11	12	2.2	1.3	.90	.69	1.0	12	18	11	12	11	18
12	11	2.2	1.3	.90	.57	1.1	12	18	9.8	7.1	13	20
13	11	2.2	1.2	.90	.64	.93	11	15	13	2.3	15	18
14	10	2.5	1.2	.90	.67	.97	8.8	14	13	4.2	16	18
15	11	2.3	1.2	.90	.68	1.0	8.6	14	13	6.4	15	18
16	12	2.3	1.2	.90	.82	.89	9.3	13	11	5.8	14	18
17	11	2.3	1.1	.90	.85	.88	8.3	13	10	6.6	14	18
18	11	2.2	1.3	.90	.80	.84	7.1	14	11	6.2	15	17
19	11	2.0	1.2	.70	.73	.82	7.1	15	14	5.1	15	17
20	10	2.0	1.2	.62	.72	.71	7.6	18	15	4.9	15	16
21	10	2.0	1.7	.94	.75	.76	11	17	15	6.1	14	14
22	11	2.0	1.2	.90	.88	.76	11	16	15	5.6	14	14
23	12	2.2	1.1	.90	.87	.87	12	14	11	5.5	15	15
24	14	2.2	1.1	.90	.85	.72	11	16	10	6.6	14	14
25	13	2.3	1.0	.80	.87	.56	9.6	15	9.6	5.3	16	14
26	6.5	2.0	1.0	.80	.96	.60	12	12	9.6	5.5	17	16
27	3.0	2.0	1.0	.77	1.0	.60	8.0	12	10	5.5	16	17
28	2.7	1.9	1.0	.85	.99	.52	10	14	11	5.8	16	17
29	2.7	2.0	.90	.79	---	.52	11	13	7.2	8.3	16	18
30	2.4	1.9	.95	.70	---	.44	9.3	13	9.4	10	14	19
31	2.2	---	1.0	.71	---	.40	---	11	---	8.6	13	---
TOTAL	301.3	65.4	37.65	26.85	21.00	26.29	229.28	451.8	344.0	272.4	422.1	482
MEAN	9.72	2.18	1.21	.87	.75	.85	7.64	14.6	11.5	8.79	13.6	16.1
MAX	15	2.5	1.7	1.0	1.0	1.2	12	19	15	16	17	20
MIN	2.2	1.9	.90	.62	.57	.40	.36	8.8	7.2	2.3	7.3	12
AC-FT	598	130	75	53	42	52	455	896	682	540	837	956

CAL YR 1981 TOTAL 2698.78 MEAN 7.39 MAX 21 MIN .41 AC-FT 5350
WTR YR 1982 TOTAL 2680.07 MEAN 7.34 MAX 20 MIN .36 AC-FT 5320

09152650 LEACH CREEK AT DURHAM, CO

LOCATION.--Lat 39°05'27", long 108°36'25", in NW¼NW¼ sec.9, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 1401005, on left bank 40 ft (12 m) downstream from culvert on U.S. Highways 6 and 50, 0.5 mi (0.8 km) northwest of Durham, and 2.9 mi (4.7 km) northwest of city hall in Grand Junction.

DRAINAGE AREA.--24.8 mi² (64.2 km²).

PERIOD OF RECORD.--April 1973 to current year. Water-quality data available, April 1973 to September 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1974-82), 30.8 ft³/s (0.872 m³/s), 22,310 acre-ft/yr (27.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 632 ft³/s (17.9 m³/s) July 18, 1974, gage height, 6.76 ft (2.060 m); minimum daily, 4.4 ft³/s (0.12 m³/s) Mar. 30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 230 ft³/s (6.51 m³/s) at 1700 Sept 13, gage height, 4.10 ft (1.250 m); minimum daily, 4.7 ft³/s (0.13 m³/s) Mar. 21-25, 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	41	8.8	8.2	6.0	5.3	5.2	32	57	48	45	63
2	50	42	8.9	8.0	5.7	6.4	5.4	34	53	49	49	65
3	78	41	8.3	7.3	6.0	6.0	5.2	38	51	51	55	67
4	67	41	8.2	7.6	5.9	5.8	5.4	38	50	51	55	71
5	66	41	8.4	7.4	5.5	5.3	14	36	48	51	54	78
6	64	32	8.4	7.4	5.5	5.1	84	35	45	54	55	74
7	56	9.5	8.2	7.0	5.5	5.3	40	40	44	50	56	75
8	53	8.7	8.1	7.0	5.5	5.4	16	45	43	54	58	72
9	50	50	8.0	7.0	5.5	5.2	20	45	47	57	59	72
10	49	26	8.2	7.0	5.5	5.0	26	45	52	61	58	75
11	53	13	8.3	7.0	5.6	5.2	23	47	56	64	64	130
12	56	11	8.2	7.0	5.4	5.6	21	52	51	60	68	116
13	57	11	8.2	7.2	5.4	5.2	24	55	46	54	67	128
14	54	11	29	7.2	5.6	5.3	28	57	44	53	67	96
15	65	10	27	7.6	5.7	5.2	26	54	43	49	69	94
16	66	10	21	6.7	6.6	5.4	27	53	41	42	62	90
17	55	10	19	7.1	6.3	5.2	28	51	37	42	62	89
18	55	10	17	7.4	5.8	5.0	27	50	41	42	62	87
19	55	9.5	16	7.3	5.6	4.9	28	52	41	38	63	87
20	54	9.5	15	7.4	5.6	4.8	31	50	49	38	57	94
21	52	9.6	15	7.5	5.6	4.7	30	46	50	40	54	86
22	52	9.9	14	7.0	5.6	4.7	28	47	51	40	59	84
23	46	9.5	9.7	7.2	5.7	4.7	32	50	50	39	62	85
24	41	9.4	8.0	6.7	5.5	4.7	30	52	47	40	62	84
25	40	9.6	8.0	6.7	5.6	4.7	30	53	49	43	71	84
26	38	9.1	7.8	6.7	5.4	4.9	31	51	52	45	72	85
27	37	9.2	7.9	6.6	5.4	5.7	29	50	51	44	73	106
28	34	9.3	7.5	6.2	5.4	5.0	30	53	49	45	73	89
29	38	9.8	7.5	6.5	---	5.3	31	55	47	45	69	87
30	43	9.2	7.9	6.0	---	5.0	32	56	47	46	69	84
31	43	---	8.1	6.0	---	4.7	---	54	---	44	66	---
TOTAL	1605	531.8	353.6	218.9	158.4	160.7	787.2	1476	1432	1479	1915	2597
MEAN	51.8	17.7	11.4	7.06	5.66	5.18	26.2	47.6	47.7	47.7	61.8	86.6
MAX	78	50	29	8.2	6.6	6.4	84	57	57	64	73	130
MIN	34	8.7	7.5	6.0	5.4	4.7	5.2	32	37	38	45	63
AC-FT	3180	1050	701	434	314	319	1560	2930	2840	2930	3800	5150

CAL YR 1981 TOTAL 10914.8 MEAN 29.9 MAX 78 MIN 4.8 AC-FT 21650
WTR YR 1982 TOTAL 12714.6 MEAN 34.8 MAX 130 MIN 4.7 AC-FT 25220

09152900 ADOBE CREEK NEAR FRUITA, CO

LOCATION.--Lat 39°08'13", long 108°41'48", in SW¼SW¼ sec.22, T.1 N., R.2 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 30 ft (9 m) downstream from bridge on U.S. Highways 6 and 50, 0.8 mi (1.3 km) upstream from mouth, and 2.4 mi (3.9 km) southeast of Fruita.

DRAINAGE AREA.--15.4 mi^2 (39.9 km^2).

PERIOD OF RECORD.--Streamflow records, April 1973 to current year. Water-quality data available, April 1973 to September 1980.

REVISED RECORDS.--WDR CO-77-2: 1973-76(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,520 ft (1,378 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 21.8 ft^3/s (0.617 m^3/s), 15,790 acre-ft/yr (19.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 203 ft^3/s (5.75 m^3/s) May 28, 1981, gage height, 6.11 ft (1.862 m), from rating curve extended above 95 ft^3/s (2.7 m^3/s); minimum daily, 1.3 ft^3/s (0.037 m^3/s) Apr. 2, 3, 1976, Mar. 18, 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) at 1300 Sept. 11, gage height, 5.26 ft (1.603 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Mar. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	20	3.4	2.9	2.4	2.1	1.7	36	47	40	41	42
2	46	20	3.4	2.8	2.3	2.4	1.7	38	44	35	50	42
3	64	20	3.4	2.5	2.3	2.2	1.7	40	42	38	48	44
4	47	18	3.4	2.4	2.3	2.2	1.9	39	38	39	40	45
5	45	17	3.4	2.7	1.9	2.0	1.7	41	38	40	40	50
6	38	18	3.6	2.7	1.9	1.9	1.9	36	38	36	38	49
7	36	12	3.4	2.5	1.9	2.0	1.8	36	41	40	36	52
8	34	10	3.2	2.3	2.1	2.0	2.9	36	40	42	40	49
9	32	9.2	3.1	2.4	2.2	1.9	4.7	28	39	42	40	53
10	33	5.1	3.2	2.5	2.4	2.0	9.7	30	37	41	42	58
11	39	4.8	3.2	2.7	2.2	2.1	14	39	34	45	56	73
12	36	4.6	3.1	2.7	2.1	2.1	18	49	28	45	54	43
13	36	4.6	3.2	2.7	2.2	1.9	15	44	29	39	52	49
14	37	4.4	2.9	2.7	2.2	2.0	20	43	28	44	47	39
15	44	4.3	3.1	2.7	2.2	2.0	20	41	32	49	45	35
16	44	4.1	5.8	2.8	2.3	2.0	26	37	38	42	41	35
17	36	4.3	10	2.9	2.4	1.9	34	34	37	39	37	35
18	37	4.1	10	2.9	2.4	1.8	39	35	38	39	39	34
19	36	3.9	9.7	3.1	2.1	1.8	41	39	46	39	42	34
20	36	4.1	9.7	2.7	2.1	1.7	41	38	51	41	42	37
21	36	3.9	10	2.6	2.1	1.7	40	36	48	39	43	36
22	34	4.1	3.4	2.4	2.1	1.7	37	38	48	37	47	37
23	32	3.9	2.8	2.2	2.3	1.7	44	40	41	37	49	37
24	32	3.9	2.7	2.2	2.1	1.7	36	40	44	41	52	36
25	35	4.1	2.8	2.4	2.1	1.7	33	41	44	43	54	36
26	32	3.8	2.9	2.3	2.0	1.9	37	44	50	44	50	35
27	27	3.8	3.1	2.4	2.1	2.0	36	41	53	38	47	49
28	25	3.8	2.8	2.5	2.0	1.8	32	43	56	39	47	35
29	23	3.9	2.7	3.2	---	1.8	37	45	47	42	45	34
30	22	3.6	2.8	2.5	---	1.7	41	45	40	44	48	34
31	21	---	2.9	2.4	---	1.6	---	46	---	43	45	---
TOTAL	1109	231.3	133.1	80.7	60.7	59.3	670.7	1218	1236	1262	1397	1267
MEAN	35.8	7.71	4.29	2.60	2.17	1.91	22.4	39.3	41.2	40.7	45.1	42.2
MAX	64	20	10	3.2	2.4	2.4	44	49	56	49	56	73
MIN	21	3.6	2.7	2.2	1.9	1.6	1.7	28	28	35	36	34
AC-FT	2200	459	264	160	120	118	1330	2420	2450	2500	2770	2510

CAL YR 1981 TOTAL 8327.1 MEAN 22.8 MAX 64 MIN 1.3 AC-FT 16520
WTR YR 1982 TOTAL 8724.8 MEAN 23.9 MAX 73 MIN 1.6 AC-FT 17310

NOTE.--NO GAGE-HEIGHT RECORD NOV. 1 TO DEC. 4, APR. 7 TO MAY 12.

09153290 REED WASH NEAR MACK, CO

LOCATION.--Lat 39°12'41", long 108°48'11", in SE¼SW¼ sec.27, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 250 ft (76 m) upstream from unnamed tributary, 0.4 mi (0.6 km) downstream from Peck and Beede Wash, and 3.5 mi (5.6 km) east of Mack.

DRAINAGE AREA.--15.7 mi^2 (40.7 km^2).

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft (1,373 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 50.6 ft^3/s (1.433 m^3/s), 36,660 acre-ft/yr (45.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 264 ft^3/s (7.48 m^3/s) July 24, 1979, gage height, 6.09 ft (1.856 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Jan. 31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 149 ft^3/s (4.22 m^3/s) at 0700 Oct. 3, gage height, 4.86 ft (1.481 m); minimum daily, 2.2 ft^3/s (0.062 m^3/s) Jan. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	62	7.4	4.6	4.1	3.9	3.1	68	66	80	94	75
2	97	62	6.9	4.9	4.9	4.1	3.1	74	63	84	90	80
3	111	57	6.4	4.9	4.4	3.9	3.1	66	73	86	97	82
4	93	56	6.3	4.1	4.3	3.8	3.1	86	86	86	93	90
5	98	56	6.3	4.1	4.4	3.7	3.0	94	89	89	93	95
6	97	56	6.4	4.1	3.8	3.5	3.1	95	88	90	92	89
7	98	36	6.3	4.0	3.8	3.6	3.0	97	93	90	86	93
8	98	15	6.1	3.0	4.0	3.6	8.0	98	102	92	88	100
9	92	12	6.0	3.2	3.5	3.5	50	92	95	92	98	97
10	89	12	6.0	3.3	3.5	3.5	54	89	80	85	92	100
11	85	11	6.0	3.3	3.6	3.7	60	84	86	82	94	108
12	85	11	5.9	3.3	3.7	3.7	68	80	84	80	99	96
13	87	11	5.7	3.3	3.7	3.4	66	88	86	78	107	110
14	87	11	5.2	3.3	4.2	3.5	61	99	88	74	110	107
15	98	11	55	3.5	6.5	3.5	57	85	83	71	104	97
16	99	10	56	3.6	7.9	3.5	58	85	74	74	88	91
17	104	9.9	57	3.0	12	3.4	62	75	76	79	83	90
18	104	9.6	57	2.8	7.4	3.4	61	67	82	81	91	90
19	105	9.3	51	2.7	4.9	3.3	67	67	84	83	92	87
20	103	9.3	52	2.6	4.1	3.2	69	66	92	82	87	90
21	102	9.0	30	2.8	4.1	3.2	79	69	80	80	93	85
22	106	9.0	8.6	2.6	4.1	3.2	68	72	84	77	93	80
23	99	9.0	4.9	2.2	4.0	3.3	61	71	78	76	90	78
24	89	8.6	4.9	2.3	3.9	3.3	93	69	84	86	88	78
25	73	8.5	4.8	2.4	3.9	3.2	61	66	74	92	94	78
26	74	8.2	4.9	2.5	3.9	3.3	54	65	70	96	98	81
27	72	8.0	4.4	2.6	3.9	3.4	45	61	72	90	100	99
28	69	8.0	4.4	2.7	3.8	3.2	54	72	78	92	102	81
29	66	8.0	4.6	5.4	---	3.2	42	68	71	93	100	77
30	63	7.9	4.6	4.4	---	3.2	52	71	74	89	105	79
31	61	---	4.6	4.3	---	3.1	---	69	---	91	88	---
TOTAL	2794	611.3	495.6	105.8	130.3	107.3	1331.5	2408	2435	2620	2929	2683
MEAN	90.1	20.4	16.0	3.41	4.65	3.46	44.4	77.7	81.2	84.5	94.5	89.4
MAX	111	62	57	5.4	12	4.1	79	99	102	96	110	110
MIN	61	7.9	4.4	2.2	3.5	3.1	3.0	61	63	71	83	75
AC-FT	5540	1210	983	210	258	213	2640	4780	4830	5200	5810	5320

CAL YR 1981 TOTAL 19973.1 MEAN 54.7 MAX 111 MIN 3.4 AC-FT 39620
WTR YR 1982 TOTAL 18650.8 MEAN 51.1 MAX 111 MIN 2.2 AC-FT 36990

NOTE.--NO GAGE-HEIGHT RECORD FEB. 20 TO MAR. 30.

09153300 REED WASH NEAR LOMA, CO

LOCATION.--Lat 39°11'01", long 108°47'12", in NE¼SW¼ sec.2, T.1 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 40 ft (12 m) upstream from bridge on U.S. Highways 6 and 50, 1.6 mi (2.6 km) upstream from mouth, and 1.7 mi (2.7 km) southeast of Loma.

DRAINAGE AREA.--29.3 mi^2 (75.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,470 ft (1,362 m), from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals.

AVERAGE DISCHARGE.--9 years, 97.9 ft^3/s (2.772 m^3/s), 70,930 acre-ft/yr (87.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 297 ft^3/s (8.41 m^3/s) July 21, 1973, gage height, 6.48 ft (1.975 m); minimum daily, 6.1 ft^3/s (0.17 m^3/s) Feb. 27, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 260 ft^3/s (7.86 m^3/s) at 2400 Sept. 13, gage height, 5.30 ft (1.615 m); maximum gage height, 5.40 ft (1.646 m) at 1000 Oct. 3, minimum daily discharge, 4.8 ft^3/s (0.136 m^3/s) Apr. 5, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	126	14	11	7.7	6.1	5.0	134	159	178	184	177
2	196	126	14	10	7.5	6.6	5.0	144	156	181	180	183
3	223	112	14	9.4	7.4	6.3	4.9	143	166	182	185	191
4	207	113	13	9.1	7.3	6.1	4.9	158	179	188	189	200
5	215	113	13	9.5	6.7	5.9	4.8	170	182	186	184	210
6	206	113	13	9.0	6.7	5.7	4.9	174	181	193	184	190
7	196	72	12	8.5	6.7	5.8	4.8	176	186	192	173	200
8	200	28	12	8.4	6.9	5.8	13	175	195	193	180	220
9	199	22	11	8.5	7.0	5.7	93	172	186	193	193	200
10	194	22	11	8.7	6.8	5.7	97	181	176	182	188	210
11	188	21	11	8.7	6.8	5.9	100	175	185	177	188	233
12	186	20	10	8.7	6.8	6.0	102	175	192	178	200	215
13	186	20	10	8.7	6.9	5.5	100	180	195	174	217	226
14	183	20	9.5	8.7	7.2	5.6	95	187	198	166	219	244
15	197	19	76	8.9	8.1	5.6	90	184	186	166	208	224
16	206	19	95	9.1	8.5	5.6	93	188	172	170	201	209
17	202	18	102	8.4	10	5.5	102	174	178	176	191	203
18	202	18	100	8.2	8.6	5.4	101	161	185	178	187	206
19	198	17	102	8.1	6.9	5.3	101	161	188	180	185	200
20	189	17	100	8.0	6.5	5.2	105	160	199	179	179	204
21	183	17	96	8.2	6.5	5.2	120	163	185	174	184	191
22	177	17	44	7.9	6.5	5.2	112	166	190	170	181	185
23	172	16	12	7.6	6.5	5.3	108	165	178	169	180	177
24	162	16	11	7.6	6.3	5.3	100	163	185	179	177	174
25	140	16	11	7.6	6.3	5.1	107	160	169	189	186	173
26	135	15	11	7.7	6.2	5.2	106	159	165	195	193	178
27	133	15	11	8.0	6.2	5.4	108	155	168	182	186	203
28	129	15	10	8.0	6.1	5.1	117	165	173	187	195	194
29	130	15	10	11	---	5.2	120	161	168	187	199	191
30	130	15	11	8.8	---	5.0	131	164	170	178	200	185
31	126	---	10	8.1	---	4.9	---	162	---	179	192	---
TOTAL	5569	1193	979.5	268.1	197.6	172.2	2355.3	5155	5395	5601	5888	5996
MEAN	180	39.8	31.6	8.65	7.06	5.55	78.5	166	180	181	190	200
MAX	223	126	102	11	10	6.6	131	188	199	195	219	244
MIN	126	15	9.5	7.6	6.1	4.9	4.8	134	156	166	173	173
AC-FT	11050	2370	1940	532	392	342	4670	10220	10700	11110	11680	11890

CAL YR 1981 TOTAL 41320.8 MEAN 113 MAX 237 MIN 6.5 AC-FT 81960
WTR YR 1982 TOTAL 38769.7 MEAN 106 MAX 244 MIN 4.8 AC-FT 76900

09153300 REED WASH NEAR LOMA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 10,500 micromhos Jan. 21, 22, 1974; minimum, 390 micromhos April 14, 1982.
WATER TEMPERATURES: Maximum, 28.0°C June 9, July 9, 10, 1973; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,710 micromhos April 8; minimum, 390 micromhos April 14.
WATER TEMPERATURES: Maximum, 24.5°C June 28, July 23, 25; minimum, 0.0°C many days during January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)
OCT 01...	1145	191	1920	1800	7.5	14.0	--	660
FEB 01...	1145	7.7	4900	4330	--	3.0	--	2300
MAR 30...	1130	5.1	--	4700	7.8	7.0	9.6	2500
JUL 09...	1045	214	1310	1360	--	19.0	--	630

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT 01...	165	60	160	2.9	5.3	180	540	210	.4
FEB 01...	500	250	370	3.4	12	320	2400	230	.2
MAR 30...	513	290	450	4.4	11	250	2600	270	.3
JUL 09...	170	51	80	1.5	4.3	141	490	71	.2

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT 01...	9.8	1270	1.7	655	1.6	.030	190	20
FEB 01...	8.4	4020	5.5	83.0	13	.020	260	210
MAR 30...	9.6	4360	5.9	59.7	15	.010	180	200
JUL 09...	14	978	1.3	565	2.4	.770	2300	130

09153300 REED WASH NEAR LOMA, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---		---	4350	4650	---	5150	1040	---	1440	1630	1700
2	1900		---	4370	4620	---	5190	1060	---	1400	1700	1260
3	---		4740	4400	4660	---	5240	1080	---	1410	1720	1240
4	---		4760	4440	4700	---	5260	1100	---	1410	1720	1190
5	---		4790	4470	5000	---	5340	1110	---	1450	1730	1040
6	---		4810	4460	5110	---	5340	1120	---	1380	1740	1200
7	---		4830	4460	5130	---	5380	1130	---	1430	1840	1430
8	---		4840	4500	5000	---	4540	1140	---	1460	1830	1720
9	---		4860	4560	4970	---	653	1140	---	1500	1790	1760
10	---		4910	4600	4990	---	514	1140	1300	1560	1810	1770
11	---		4940	4640	---	---	480	1140	1240	1600	1840	1740
12	---		4960	4650	---	---	515	1120	1200	1620	1740	1780
13	---		4990	4680	---	---	553	1160	1190	1710	1620	1720
14	---		4990	4700	---	---	459	1100	1170	1820	1630	1670
15	---		2810	4740	---	---	475	1010	1240	1860	1650	1640
16	---		1840	4770	---	---	422	938	1330	1860	1680	1640
17	---		1700	4780	---	---	470	939	1340	1830	1740	1640
18	---		1670	4810	---	---	550	984	1310	1780	1750	1630
19	---		1670	4840	---	---	606	---	1360	1580	1750	1600
20	---		1700	4870	---	---	657	---	1310	1630	1790	1570
21	---		1710	4900	---	---	711	---	1250	1690	1760	1650
22	---		1890	4920	---	---	764	---	1280	1720	1820	1690
23	---		2410	4940	---	---	817	---	1290	1790	1870	1710
24	---		3130	4960	---	---	863	---	1270	1690	1860	1720
25	---		3470	4990	---	---	898	---	1370	1620	1790	1740
26	---		3630	5010	---	---	935	---	1400	1630	1730	1730
27	---		3780	5000	---	---	966	---	1400	1710	1740	1680
28	---		3870	4900	---	---	987	---	1430	1710	1700	1660
29	---		4010	4810	---	---	981	---	1500	1700	1670	1630
30	---		4180	4400	---	---	1000	---	1500	1750	1670	1620
31	---		4270	4480	---	5170	---	---	---	1660	1720	---
MEAN			3660	4690			1890			1630	1740	1590

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

09153300 REED WASH NEAR LOMA, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---			---	---	5.5	4.0	4.0	3.0	---	---
2	15.5	15.0			---	---	4.0	1.5	4.0	1.5	---	---
3	---	---			4.5	2.5	2.5	.0	3.0	1.5	---	---
4	---	---			5.0	3.0	.5	.0	2.5	.0	---	---
5	---	---			6.0	4.0	3.0	1.0	.0	.0	---	---
6	---	---			5.5	3.5	4.0	1.0	.0	.0	---	---
7	---	---			5.0	3.0	.5	.0	.0	.0	---	---
8	---	---			5.0	3.0	.0	.0	.0	.0	---	---
9	---	---			5.0	3.0	.0	.0	.5	.0	---	---
10	---	---			6.0	4.0	.0	.0	2.5	.5	---	---
11	---	---			6.5	4.5	.0	.0	---	---	---	---
12	---	---			6.0	4.0	.0	.0	---	---	---	---
13	---	---			6.5	4.5	.0	.0	---	---	---	---
14	---	---			5.5	4.0	.0	.0	---	---	---	---
15	---	---			4.5	2.0	.0	.0	---	---	---	---
16	---	---			2.5	1.5	.0	.0	---	---	---	---
17	---	---			2.5	1.5	.5	.0	---	---	---	---
18	---	---			2.0	1.0	2.0	.0	---	---	---	---
19	---	---			2.5	1.5	2.5	1.0	---	---	---	---
20	---	---			3.0	2.0	3.0	2.0	---	---	---	---
21	---	---			2.5	2.0	4.0	2.5	---	---	---	---
22	---	---			3.5	2.5	3.5	2.0	---	---	---	---
23	---	---			3.0	1.5	2.0	.0	---	---	---	---
24	---	---			2.5	.5	2.0	.0	---	---	---	---
25	---	---			3.5	2.0	2.0	.0	---	---	---	---
26	---	---			3.0	1.0	3.0	1.0	---	---	---	---
27	---	---			4.5	3.0	4.5	2.0	---	---	---	---
28	---	---			3.0	1.0	3.5	1.0	---	---	---	---
29	---	---			3.0	1.0	4.5	3.0	---	---	---	---
30	---	---			5.5	3.0	4.0	.5	---	---	---	---
31	---	---			5.0	4.0	3.5	1.0	---	---	12.0	4.5
MONTH					6.5	.5	5.5	.0				

REED WASH BASIN

09153300 REED WASH NEAR LOMA, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.5	7.5	18.0	11.5	---	---	22.0	17.5	23.5	17.5	21.5	17.0
2	11.0	4.5	17.5	12.0	---	---	23.5	16.0	22.5	19.0	21.0	16.5
3	12.0	4.5	18.0	13.5	---	---	24.0	16.5	23.0	18.5	21.0	16.0
4	12.5	6.5	18.0	13.0	---	---	23.5	17.0	23.0	17.5	20.5	17.0
5	10.0	5.5	16.0	12.0	---	---	20.0	17.5	23.5	17.5	20.0	18.0
6	11.5	6.0	15.5	8.5	---	---	22.0	15.0	23.5	17.5	20.0	16.5
7	10.5	6.5	15.0	9.0	---	---	23.0	16.0	23.5	18.5	18.5	16.5
8	10.5	4.0	15.0	10.0	---	---	23.5	18.5	22.5	19.0	19.0	16.0
9	9.5	6.5	13.0	10.0	---	---	21.0	17.5	23.0	19.0	19.5	16.0
10	9.5	6.0	14.5	9.5	19.5	13.0	22.0	15.5	23.5	18.5	19.0	17.0
11	10.5	7.5	13.5	9.5	21.0	14.0	22.0	15.5	21.5	19.0	17.5	16.0
12	13.0	9.5	11.5	9.5	20.5	15.0	22.5	16.0	22.0	18.0	17.0	15.0
13	14.0	10.0	14.5	9.5	20.0	15.0	22.5	16.5	20.0	18.0	15.5	13.0
14	14.0	10.5	16.0	10.0	20.5	14.5	22.5	16.5	22.5	18.0	13.5	12.5
15	14.0	10.0	16.0	10.5	21.0	14.5	22.5	16.0	22.0	18.0	15.0	12.0
16	13.0	9.5	16.5	10.5	22.5	14.5	22.5	15.5	21.5	18.0	15.5	12.5
17	13.5	8.0	18.0	11.5	22.5	16.0	22.5	17.5	22.5	18.0	17.0	14.5
18	13.5	8.5	18.0	13.0	21.0	17.0	23.0	17.0	22.5	18.5	17.5	14.5
19	12.0	7.0	---	---	20.5	16.0	23.5	17.0	23.0	18.5	17.0	15.0
20	9.5	5.5	---	---	22.0	14.5	24.0	17.5	23.0	19.0	17.0	15.0
21	11.5	5.0	---	---	21.5	16.0	24.0	18.0	22.5	19.5	17.5	15.0
22	13.0	5.5	---	---	22.5	16.5	23.5	18.5	23.5	19.5	18.0	15.0
23	13.0	9.0	---	---	21.5	16.5	24.5	19.0	23.0	19.0	18.5	15.5
24	15.5	8.5	---	---	23.0	16.5	23.0	19.5	23.0	19.0	18.0	15.0
25	15.0	8.5	---	---	22.5	17.0	24.5	19.0	20.5	18.5	17.0	16.0
26	16.5	10.0	---	---	23.5	16.0	24.0	20.0	21.0	17.5	18.0	16.0
27	15.5	10.5	---	---	24.0	17.0	24.0	20.0	22.0	17.5	16.5	14.0
28	17.0	9.5	---	---	24.5	17.5	22.5	19.5	20.5	17.5	14.0	12.5
29	16.0	11.0	---	---	23.5	17.5	23.5	19.0	21.5	17.0	13.0	12.0
30	16.5	9.5	---	---	22.0	18.5	24.0	18.0	21.5	17.5	13.5	12.0
31	---	---	---	---	---	---	23.5	17.5	20.5	17.5	---	---
MONTH	17.0	4.0					24.5	15.0	23.5	17.0	21.5	12.0

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

09153330 WEST SALT CREEK NEAR CARBONERA, CO

LOCATION.--Lat 39°23'47", long 108°58'51", in NW¼SW¼ sec.3, T.8 S., R.104 W., Garfield County, Hydrologic Unit 14010005, on right bank 4.5 mi (7.2 km) south of Carbonera, 32 mi (51 km) northwest of Grand Junction.

DRAINAGE AREA.--95.6 mi² (247.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to September 1981, March to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,082 ft (1,549 m) from topographic map.

REMARKS.--Record poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s (49.8 m³/s) Aug. 13, 1982, result of indirect determination of peak flow, gage height, 9.80 ft (2.987 m), from highwater mark; no flow most of time.

EXTREMES FOR CURRENT PERIOD.--Peak discharges above base of 20 ft³/s (0.57 m³/s) and maximum (*), during period March to September:

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 4	unknown	30	0.85	a 3.16	0.963
Aug. 13	unknown	*1,760	49.8	9.80	2.987
Sept. 8	1700	394	11.2	6.07	1.850
Sept. 11	0800	330	9.35	5.75	1.753
Sept. 13	1500	492	13.9	6.56	1.999
Sept. 27	1400	171	4.84	4.69	1.430

No flow most of time.
a-Outside highwater mark.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						.00	.00	.00	.00	.00	.00	.00
2						.10	.00	.00	.00	.00	.00	.00
3						.50	.00	.00	.00	.00	.00	.00
4						.30	.00	3.0	.00	.00	.00	.00
5						.02	.00	.05	.00	.00	.00	.00
6						.00	.00	.00	.00	.00	.00	.00
7						.00	.00	.00	.00	.00	.00	.00
8						.00	.00	.00	.00	.00	.00	4.7
9						.00	.00	.00	.00	.00	.00	.95
10						.00	.00	.00	.00	.00	.00	.00
11						.01	.00	.00	.00	.00	.00	22
12						.20	.00	.00	.00	.00	2.5	.95
13						.03	.00	.00	.00	.00	100	20
14						.00	.00	.00	.00	.00	1.8	3.1
15						.00	.00	.00	.00	.00	.18	.00
16						.03	.00	.00	.00	.00	.02	.00
17						.10	.00	.00	.00	.00	.00	.00
18						.40	.00	.00	.00	.00	.00	.00
19						.20	.00	.00	.00	.00	.00	.00
20						.10	.00	.00	.00	.00	.00	.00
21						.05	.00	.00	.00	.00	.00	.00
22						.00	.00	.00	.00	.00	.00	.00
23						.05	.00	.00	.00	.00	.00	.00
24						.00	.00	.00	.00	.00	.00	.00
25						.00	.00	.00	.00	.00	.00	.00
26						.00	.00	.00	.00	.13	.00	.00
27						.00	.00	.00	.00	14	.00	17
28						.00	.00	.00	.00	1.3	.00	8.2
29						.00	.00	.00	.00	.12	.00	1.1
30						.00	.00	.00	.00	.02	.00	.00
31						.00	---	.00	---	.00	.00	---
TOTAL						2.09	.00	3.05	.00	15.57	104.50	78.00
MEAN						.067	.000	.098	.000	.50	3.37	2.60
MAX						.50	.00	3.0	.00	14	100	22
MIN						.00	.00	.00	.00	.00	.00	.00
AC-FT						4.1	.00	6.0	.00	31	207	155

NOTE.--NO GAGE-HEIGHT RECORD JULY 26 TO AUG. 27.

09153330 WEST SALT CREEK NEAR CARBONERA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April to September 1981, March 1982 to September 1982 (discontinued).
WATER TEMPERATURE: April to September 1981, March 1982 to September 1982 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1981. Pumping sampler since June 1979.

REMARKS.--No flow most of year. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum 9,980 micromhos July 18, 1981; minimum 180 micromhos May 28, 1981.
WATER TEMPERATURE: Maximum 38.0°C Sept. 9, 1982; minimum 0.0°C March 19-22, 1982.

EXTREMES FOR APRIL TO SEPTEMBER.--
SPECIFIC CONDUCTANCE: Maximum, 4,790 micromhos Mar. 20; minimum, 260 micromhos Sept. 27.
WATER TEMPERATURE: Maximum, 38.0°C Sept. 9; minimum, 0.0°C March 19-22.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---		---		---	---	---
2						---		---		---	---	---
3						---		---		---	---	---
4						---		2810		---	---	---
5						---		3200		---	---	---
6						---		---		---	---	---
7						---		---		---	---	---
8						---		---		---	---	1020
9						---		---		---	---	945
10						---		---		---	---	900
11						---		---		---	---	725
12						---		---		---	666	584
13						---		---		---	661	558
14						---		---		---	510	521
15						---		---		---	553	---
16						---		---		---	532	---
17						---		---		---	---	---
18						3850		---		---	---	---
19						4490		---		---	---	---
20						2600		---		---	---	---
21						870		---		---	---	---
22						475		---		---	---	---
23						---		---		---	---	---
24						---		---		---	---	---
25						---		---		---	---	---
26						---		---		583	---	---
27						---		---		841	---	524
28						---		---		1030	---	---
29						---		---		1270	---	---
30						1260		---		1100	---	---
31						---		---		---	---	---
MEAN						2260		3010		965	584	722

WTR YR 1982 MEAN 1270 MAX 4490 MIN 475

09153330 WEST SALT CREEK NEAR CARBONERA, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											---	---
8											---	---
9											---	---
10											---	---
11											---	---
12											---	---
13											---	---
14											---	---
15											---	---
16											---	---
17											---	---
18											14.5	3.0
19											10.0	.0
20											8.5	.0
21											9.5	.0
22											13.0	.0
23											---	---
24											---	---
25											---	---
26											---	---
27											---	---
28											---	---
29											---	---
30											8.0	1.5
31											---	---
MONTH											14.5	.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1			---	---			---	---	---	---	---	---
2			---	---			---	---	---	---	---	---
3			---	---			---	---	---	---	---	---
4			15.5	11.5			---	---	---	---	---	---
5			10.5	8.0			---	---	---	---	---	---
6			---	---			---	---	---	---	---	---
7			---	---			---	---	---	---	---	---
8			---	---			---	---	---	---	18.5	13.0
9			---	---			---	---	---	---	38.0	11.5
10			---	---			---	---	---	---	30.0	13.5
11			---	---			---	---	---	---	16.5	10.0
12			---	---			---	---	30.0	22.5	31.5	7.5
13			---	---			---	---	25.0	20.0	11.5	8.5
14			---	---			---	---	32.5	17.5	14.0	7.0
15			---	---			---	---	22.0	17.0	---	---
16			---	---			---	---	30.5	15.0	---	---
17			---	---			---	---	---	---	---	---
18			---	---			---	---	---	---	---	---
19			---	---			---	---	---	---	---	---
20			---	---			---	---	---	---	---	---
21			---	---			---	---	---	---	---	---
22			---	---			---	---	---	---	---	---
23			---	---			---	---	---	---	---	---
24			---	---			---	---	---	---	---	---
25			---	---			---	---	---	---	---	---
26			---	---			24.0	21.5	---	---	---	---
27			---	---			31.0	21.5	---	---	---	---
28			---	---			25.5	21.5	---	---	---	---
29			---	---			28.5	21.0	---	---	---	---
30			---	---			24.0	21.5	---	---	---	---
31			---	---			---	---	---	---	---	---
MONTH			15.5	8.0			31.0	21.0	32.5	15.0	38.0	7.0

09153400 WEST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°18'31", long 108°58'59", in SW¼NE¼ sec.3, T.9 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank at upstream side of bridge, 0.8 mi (1.3 km) downstream from Prairie Canyon, and 8.7 mi (14.0 km) northwest of Mack.

DRAINAGE AREA.--168 mi² (435 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to current year.

REVISED RECORDS.--WDR CO-75-2: 1974.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m), from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion above station. A few stock ponds on tributaries above station.

AVERAGE DISCHARGE.--9 years, 0.66 ft³/s (0.019 m³/s), 478 acre-ft/yr (589,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) Aug. 15, 1982, gage height 7.43 ft (2.265 m) from floodmarks; rating extended above 40 ft³/s (1.1 m³/s) on basis of slope-area measurements at gage height 5.18 ft (1.579 m), 5.93 ft (1.807 m), 7.0 ft (2.134 m), and 7.43 ft (2.265 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.1 m³/s) (revised) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 12	1000	281	7.96	3.78	1.152	Aug. 16	0100	495	14.0	4.58	1.396
July 27	0300	513	14.5	4.65	1.417	Sept. 11	0930	430	12.2	4.32	1.317
Aug. 15	unknown	1430	40.5	7.43	2.265	Sept. 27	0930	610	17.3	5.00	1.524

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	6.5	.00	.00	.00	.00	.36	.00	.00	.00	.00	.00	.00
3	13	.00	.00	.00	.00	3.5	.00	.00	.00	.00	.00	.00
4	31	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00
5	6.9	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00
6	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	3.8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0
9	3.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50
10	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20
11	33	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	52
12	89	.00	.00	.00	.00	.01	.00	.00	.00	.00	.33	1.4
13	7.6	.00	.00	.00	.00	.06	.00	.00	.00	.00	2.0	5.4
14	.45	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.37
15	30	.00	.00	.00	.00	.00	.00	.00	.00	.00	150	.00
16	14	.00	.00	.00	.00	.04	.00	.00	.00	.00	35	.00
17	.30	.00	.00	.00	.16	.12	.00	.00	.00	.00	.09	.00
18	.00	.00	.00	.00	.23	.06	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.28	.01	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.30	.00	.00	.00	.00	.00	.00	1.3
21	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.62	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.60	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.30	.00	.00	.00	.00	15	.10	131
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	59
29	.25	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	43
30	.35	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	11
31	.15	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	239.40	.00	.00	.00	4.55	4.39	.00	.00	.00	15.00	188.62	307.17
MEAN	7.72	.000	.000	.000	.16	.14	.000	.000	.000	.48	6.08	10.2
MAX	89	.00	.00	.00	1.0	3.5	.00	.00	.00	15	150	131
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	475	.00	.00	.00	9.0	8.7	.00	.00	.00	30	374	609

CAL YR 1981 TOTAL 417.37 MEAN 1.14 MAX 89 MIN .00 AC-FT 828
WTR YR 1982 TOTAL 759.13 MEAN 2.08 MAX 150 MIN .00 AC-FT 1510

NOTE.--NO GAGE-HEIGHT RECORD AUG. 12-15.

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: September 1973 to current year.
WATER TEMPERATURES: September 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1973; pumping sampler since June 1979.

REMARKS.--No flow during most of period of record. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 12,800 micromhos Sept. 14, 1981; minimum, 240 micromhos July 3, 1981.
WATER TEMPERATURE: Maximum, 34.0°C July 22, 1981; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 9,360 micromhos Mar. 16; minimum recorded, 300 micromhos Sept. 30.
WATER TEMPERATURE: Maximum, 29.5°C Aug. 16; minimum, 0.0°C Mar. 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (UMHOS)	SPECIFIC CONDUCTANCE LAB (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS (MG/L AS CACO3)
OCT								
05...	1015	13	1800	1980	7.8	12.0	9.2	950

DATE	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)
OCT									
05...	260	74	120	1.7	9.1	50	1100	17	.3

DATE	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	PHOSPHORUS, DISSOLVED (MG/L AS P)	IRON, DISSOLVED (UG/L AS FE)	MANGANESE, DISSOLVED (UG/L AS MN)
OCT								
05...	4.9	1620	2.2	58.2	.78	.020	80	10

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---					---				---	---	---
2	2390					---				---	---	---
3	1750					3440				---	---	---
4	1230					4050				---	---	---
5	1640					4230				---	---	---
6	1800					---				---	---	---
7	---					---				---	---	---
8	1480					---				---	---	1640
9	1430					---				---	---	1480
10	1430					---				---	---	1300
11	972					---				---	---	1030
12	938					5400				---	1590	990
13	988					4240				---	1470	---
14	991					5340				---	1500	---
15	1000					---				---	1620	---
16	984					7650				---	1300	---
17	1010					5510				---	1290	---
18	---					6310				---	---	---
19	---					5990				---	---	---
20	---					---				---	---	1340
21	---					---				---	---	---
22	---					---				---	---	---
23	---					---				---	---	---
24	---					---				---	---	---
25	---					---				---	---	---
26	---					---				---	---	---
27	---					---				3550	6290	1200
28	---					---				---	---	770
29	1620					---				---	---	828
30	1650					---				---	---	497
31	1790					---				---	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---									---	---
2	16.0	14.5									---	---
3	18.5	12.5									11.5	3.5
4	13.5	11.0									13.0	.5
5	20.0	10.0									2.5	.0
6	11.0	7.5									---	---
7	---	---									---	---
8	16.0	10.5									---	---
9	18.0	6.0									---	---
10	11.5	7.5									---	---
11	10.5	8.5									---	---
12	12.0	5.0									4.0	3.5
13	16.0	6.0									16.0	1.5
14	8.0	7.5									5.0	4.5
15	9.5	8.0									---	---
16	12.0	5.0									12.5	3.5
17	15.5	4.5									14.0	2.5
18	---	---									14.5	2.0
19	---	---									3.5	1.5
20	---	---									---	---
21	---	---									---	---
22	---	---									---	---
23	---	---									---	---
24	---	---									---	---
25	---	---									---	---
26	---	---									---	---
27	---	---									---	---
28	---	---									---	---
29	7.0	6.0									---	---
30	10.5	2.5									---	---
31	14.5	2.5									---	---

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1							---	---	---	---	---	---
2							---	---	---	---	---	---
3							---	---	---	---	---	---
4							---	---	---	---	---	---
5							---	---	---	---	---	---
6							---	---	---	---	---	---
7							---	---	---	---	---	---
8							---	---	---	---	18.0	16.5
9							---	---	---	---	27.0	13.5
10							---	---	---	---	21.0	20.5
11							---	---	---	---	17.0	14.5
12							---	---	21.5	20.5	22.0	11.0
13							---	---	25.0	19.0	14.0	10.0
14							---	---	28.5	18.5	12.5	8.5
15							---	---	27.5	16.5	---	---
16							---	---	29.5	16.0	---	---
17							---	---	25.0	18.0	---	---
18							---	---	---	---	---	---
19							---	---	---	---	---	---
20							---	---	---	---	25.0	12.0
21							---	---	---	---	---	---
22							---	---	---	---	---	---
23							---	---	---	---	---	---
24							---	---	---	---	---	---
25							---	---	---	---	---	---
26							---	---	---	---	---	---
27							27.0	21.0	23.5	21.5	14.0	10.0
28							---	---	---	---	14.5	9.5
29							---	---	---	---	14.5	8.5
30							---	---	---	---	17.5	11.5
31							---	---	---	---	---	---

09160000 BADGER WASH OBSERVATION RESERVOIR 4-A NEAR MACK, CO

LOCATION.--Lat 39°19'52", long 108°55'49", in NE¼NE¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just upstream from Prairie Dog Reservoir and 8 mi (12.9 km) northwest of Mack.

DRAINAGE AREA.--0.022 mi² (0.057 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum discharge, water years 1954-73, published in WDR CO 1971. May 1976 to September 1981, March 1982 to September 1982 (discontinued).

GAGE.--Water-stage recorder and 18-inch Parshall flume. Altitude of gage is 4,940 ft (1,506 m), from topographic map. September 1954, to September 1973, nonrecording gage at present site and datum.

REMARKS.--Records good. No diversions above station.

COOPERATION.--Maximum discharge for period of record furnished by U.S. Bureau of Land Management.

AVERAGE DISCHARGE.--5 years, 0.00 ft³/s (0.0 m³/s), 0.00 acre-ft/yr (0.00 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s (1.36 m³/s) July 12, 1965; no flow most of each year.

EXTREMES FOR CURRENT PERIOD.--March to September: No flow during period.

09160500 BADGER WASH OBSERVATION RESERVOIR 12 NEAR MACK, CO

LOCATION.--Lat 39°19'24", long 108°55'48", in NE¼NE¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just upstream from Middle Basin Reservoir and 7.5 mi (12.1 km) northwest of Mack.

DRAINAGE AREA.--0.092 mi^2 (0.238 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1976 to September 1981, March 1982 to September 1982 (discontinued).

GAGE.--Water-stage recorder and 18-inch Parshall flume. Altitude of gage is 4,865 ft (1,483 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--5 years, 0.001 ft^3/s (0.001 m^3/s), 0.7 acre-ft/yr (863 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 50 ft^3/s (1.42 m^3/s) Sept. 5, 1981; no flow most of each year.

EXTREMES FOR CURRENT PERIOD.--March to September: Maximum discharge, about 20 ft^3/s (0.57 m^3/s) Sept. 27, gage height, 1.79 ft (0.546 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, PERIOD MARCH TO SEPTEMBER 1982
MEAN VALUES

Sept. 10 0.17 Sept. 13 0.09 Sept. 27 0.44

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March to September 1981; March to September 1982 (discontinued).
WATER TEMPERATURE: March to September 1981; March to September 1982 (discontinued).

INSTRUMENTATION.--Water-quality monitor since March 1981. Pumping sampler since October 1976.

REMARKS.--No flow most of time. Daily maximum and minimum specific-conductance data available in district office. The sediment samples shown are based on point samples collected by an automatic sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,320 micromhos July 9, 1981; minimum, 300 micromhos July 23, 1981.
WATER TEMPERATURE: Maximum, 21.0°C July 23, 1981; minimum observed, 10.0°C Sept. 27, 1982.

EXTREMES FOR MARCH TO SEPTEMBER.—
SPECIFIC CONDUCTANCE: Maximum observed, 1,250 micromhos Sept. 10; minimum observed, 450 micromhos Sept. 13.
WATER TEMPERATURE: Maximum observed, 19.0°C Sept. 11; minimum observed, 10.0°C Sept. 27.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
SEP											
10...	2115	3.0	1000	654	320	120	4.6	5.5	.1	5.6	54
13...	1610	5.2	970	650	320	120	4.6	5.6	.1	5.6	54
27...	1015	.39	--	672	320	120	5.1	5.8	.1	4.2	76

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP											
10...	270	3.8	.1	5.2	449	.61	3.7	.36	<.010	13	4
13...	270	3.3	.2	4.6	446	.61	6.3	<.10	.030	16	6
27...	250	10	.1	4.5	447	.61	.47	.45	.110	8	1

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
SEP					SEP				
10...	2040	2.7	E56300	404	27...	1000	.54	E5620	8.2
10...	2115	3.0	E18100	148	27...	1005	.43	E5690	6.6
10...	2145	2.6	E12500	88	27...	1010	.39	E5220	5.5
13...	1615	3.5	E13700	131	27...	1020	.47	E5350	6.8
27...	0900	.12	E12200	4.0	27...	1025	.85	E9900	23
27...	0905	4.7	E4750	60	27...	1030	1.5	E11000	43
27...	0910	12	E4990	159	27...	1035	1.9	E13200	67
27...	0915	20	E3720	201	27...	1040	1.9	E14200	74
27...	0920	18	E2840	138	27...	1045	2.1	E15500	86
27...	0925	12	E3800	121	27...	1050	2.3	E14500	88
27...	0930	7.5	E3710	76	27...	1055	2.0	E14000	76
27...	0935	4.1	E4090	45	27...	1100	1.9	E12900	65
27...	0940	2.4	E4310	28	27...	1105	1.8	E14300	70
27...	0945	1.5	E4930	20	27...	1110	1.5	E15700	62
27...	0950	.99	E5160	14	27...	1115	1.4	E15000	57
27...	0955	.71	E5030	9.6					

E ESTIMATED.

SALT CREEK BASIN

09160500 BADGER WASH OBSERVATION RESERVOIR 12 NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												---
2												---
3												---
4												---
5												---
6												---
7												---
8												---
9												---
10												1130
11												845
12												---
13												849
14												---
15												---
16												---
17												---
18												---
19												---
20												---
21												---
22												---
23												---
24												---
25												---
26												---
27												650
28												---
29												---
30												---
31												---
MEAN												869

WTR YR 1982 MEAN 869 MAX 1130 MIN 650

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1											---	---
2											---	---
3											---	---
4											---	---
5											---	---
6											---	---
7											---	---
8											---	---
9											---	---
10											15.5	15.0
11											19.0	14.0
12											---	---
13											11.5	10.5
14											---	---
15											---	---
16											---	---
17											---	---
18											---	---
19											---	---
20											---	---
21											---	---
22											---	---
23											---	---
24											---	---
25											---	---
26											---	---
27											17.5	10.0
28											---	---
29											---	---
30											---	---
31											---	---
MONTH											19.0	10.0
YEAR	19.0	10.0										

09161000 BADGER WASH OBSERVATION RESERVOIR 2-A NEAR MACK, CO

LOCATION.--Lat 39°19'46", long 108°56'33", in NW¼NW¼ sec.36, T.8 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on left bank just upstream from West Twin Reservoir and 8.3 mi (13.4 km) northwest of Mack.

DRAINAGE AREA.--0.148 mi² (0.383 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum discharge, water years 1954-73, published in WDR CO 1971. May 1976 to September 1981, March 1982 to September 1982 (discontinued).

GAGE.--Water-stage recorder and 2-ft Parshall flume. Altitude of gage is 4,935 ft (1,504 m), from topographic map. September 1954, to September 1971, nonrecording gage at present site and datum.

REMARKS.--Records fair. No diversions above station.

COOPERATION.--Maximum discharge for period of record furnished by U.S. Bureau of Land Management.

AVERAGE DISCHARGE.--6 years, 0.001 ft³/s (0.001 m³/s), 0.7 acre-ft/yr (863 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 262 ft³/s (7.42 m³/s) July 25, 1965; no flow most of each year.

EXTREMES FOR CURRENT PERIOD.--March to September: No flow during period.

09163050 BADGER WASH NEAR MACK, CO

LOCATION.--Lat 39°17'36", long 108°55'59", in NE¼NW¼ sec.7, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 250 ft (76 m) upstream from bridge, 2.9 mi (4.7 km) upstream from mouth, and 6.0 mi (9.7 km) northwest of Mack.

DRAINAGE AREA.--6.51 mi² (16.86 km²).

PERIOD OF RECORD.--Streamflow records, April 1973 to September 1982 (discontinued). Water-quality data available June 1973 to September 1980.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,690 ft (1,430 m), from topographic map.

REMARKS.--Records good. Flow is mostly water wasted into creek 300 ft (91 m) above gage from Government Highline Canal. Natural flow of stream affected by numerous small detention reservoirs on tributaries upstream. No known diversion above gage.

AVERAGE DISCHARGE.--9 years, 6.93 ft³/s (0.196 m³/s), 5,020 acre-ft/yr (6.19 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 618 ft³/s (17.5 m³/s) July 4, 1977, gage height, 4.75 ft (1.448 m), from rating curve extended above 60 ft³/s (1.7 m³/s); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 94 ft³/s (2.66 m³/s) at 0500 Apr. 17, gage height, 3.55 ft (1.082 m), from peak stage indicator; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	.00	.00	.00	.00	.00	.00	1.9	4.0	3.0	.11	14
2	26	.00	.00	.00	.00	.00	.00	2.7	4.3	1.6	.10	16
3	28	.00	.00	.00	.00	.00	.00	4.1	5.1	.52	.08	18
4	30	.00	.00	.00	.00	.00	.00	5.7	9.3	.05	.12	19
5	33	.00	.00	.00	.00	.00	.00	8.0	13	.06	.06	19
6	35	.00	.00	.00	.00	.00	.00	11	18	.32	.08	20
7	27	.00	.00	.00	.00	.00	.00	15	17	.25	.07	18
8	21	.00	.00	.00	.00	.00	.00	14	17	.14	.12	16
9	25	.00	.00	.00	.00	.00	.00	14	13	.15	.08	19
10	35	.00	.00	.00	.00	.00	19	13	12	.11	.13	19
11	35	.00	.00	.00	.00	.00	43	16	12	.06	.15	28
12	20	.00	.00	.00	.00	.00	64	10	12	.07	.09	29
13	19	.00	.00	.00	.00	.00	33	8.5	14	.09	.57	31
14	20	.00	.00	.00	.00	.00	.00	9.8	14	.09	4.8	27
15	25	.00	.00	.00	.00	.00	.00	11	12	.16	6.8	34
16	23	.00	.00	.00	.00	.00	31	13	12	.09	5.7	34
17	24	.00	.00	.00	.00	.00	81	14	13	.09	3.2	29
18	25	.00	.00	.00	.00	.00	76	13	13	.08	2.9	30
19	24	.00	.00	.00	.00	.00	58	8.5	11	.07	1.8	30
20	22	.00	.00	.00	.00	.00	49	7.2	12	.08	1.8	30
21	21	.00	.00	.00	.00	.00	37	8.0	13	.09	3.2	29
22	19	.00	.00	.00	.00	.00	34	8.8	10	.13	4.6	31
23	18	.00	.00	.00	.00	.00	33	12	7.9	.11	3.9	32
24	13	.00	.00	.00	.00	.00	31	9.9	10	.07	6.2	32
25	8.9	.00	.00	.00	.00	.00	33	8.4	10	.08	5.4	32
26	1.5	.00	.00	.00	.00	.00	22	8.2	12	.09	7.7	32
27	.24	.00	.00	.00	.00	.00	22	4.5	15	.09	8.8	38
28	.00	.00	.00	.00	.00	.00	20	1.7	10	.08	8.4	28
29	.00	.00	.00	.00	---	.00	9.8	1.7	7.5	.12	8.1	30
30	.00	.00	.00	.00	---	.00	2.3	2.4	2.5	.09	8.3	31
31	.00	---	.00	.00	---	.00	---	3.9	---	.07	10	---
TOTAL	604.64	.00	.00	.00	.00	.00	698.10	269.9	335.6	8.10	103.36	795
MEAN	19.5	.000	.000	.000	.000	.000	23.3	8.71	11.2	.26	3.33	26.5
MAX	35	.00	.00	.00	.00	.00	81	16	18	3.0	10	38
MIN	.00	.00	.00	.00	.00	.00	.00	1.7	2.5	.05	.06	14
AC-FT	1200	.00	.00	.00	.00	.00	1380	535	666	16	205	1580

CAL YR 1981 TOTAL 2455.35 MEAN 6.73 MAX 67 MIN .00 AC-FT 4870
WTR YR 1982 TOTAL 2814.70 MEAN 7.71 MAX 81 MIN .00 AC-FT 5580

NOTE.--NO GAGE-HEIGHT RECORD OCT. 15 TO DEC. 3.

09163310 EAST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°17'50", long 108°51'58", in SE¼SE¼ sec.3, T.9 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 100 ft (30 m) upstream from bridge, 200 ft (61 m) downstream from Dry Canyon wash, and 5.0 mi (8.0 km) north of Mack.

DRAINAGE AREA.--197 mi^2 (510 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1973 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (1,417 m), from topographic map.

REMARKS.--Records poor. Some regulation by several small detention reservoirs and stock ponds on tributaries above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--9 years, 5.81 ft^3/s (0.165 m^3/s), 4,210 acre-ft/yr (5.19 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,630 ft^3/s (74.5 m^3/s) July 18, 1974, gage height, 9.95 ft (3.033 m), from floodmarks, from rating curve extended above 240 ft^3/s (6.8 m^3/s), on basis of slope-area measurement of peak flow; minimum daily, 0.06 ft^3/s (0.002 m^3/s) Mar. 16, 1978, Oct. 25, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1972, reached a stage of 8.9 ft (2.71 m), from floodmarks (discharge, 2,160 ft^3/s or 61.2 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft^3/s (9.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Aug. 15	unknown	* 995	28.2	6.10	1.859	Sept. 13	1700	754	21.4	5.25	1.600
Sept. 11	1230	886	25.1	5.65	1.722	Sept. 27	0930	740	21.0	5.08	1.548

Minimum daily discharge, 0.06 ft3/s (0.002 m^3/s) Oct. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	.08	.86	1.5	.97	2.8	8.7	37	4.7	1.1	.40	1.0
2	12	.24	.74	1.4	.95	2.0	8.8	37	3.9	.94	.52	1.1
3	33	.33	.60	.99	.83	2.1	8.0	41	3.2	.66	.64	1.3
4	72	.38	1.3	.83	.67	.86	8.5	45	3.5	.72	.74	1.4
5	23	.38	1.2	.92	.63	.62	8.5	40	3.0	.64	.76	1.3
6	3.9	.50	1.3	.93	.56	.28	8.8	31	2.1	.76	.74	1.4
7	2.4	.74	1.4	.94	.48	.38	9.1	30	1.7	.84	.82	1.9
8	2.2	.50	2.0	1.1	.54	.50	8.6	29	1.3	.76	.88	1.6
9	4.6	.62	2.2	.79	.42	.74	8.4	24	1.6	.64	.98	1.4
10	2.3	.62	2.6	.66	.42	.86	8.4	24	1.6	.52	1.2	9.5
11	2.3	.62	2.4	.48	.45	.98	9.2	22	1.6	.42	1.7	105
12	10	.50	2.4	.45	.61	2.8	9.6	21	1.5	.46	2.3	3.3
13	4.8	.50	1.8	.45	1.0	4.4	10	20	1.4	.49	2.1	73
14	2.0	.50	2.1	.36	.98	2.8	11	17	1.5	.42	1.7	9.3
15	40	.50	2.5	.35	.93	3.2	15	16	1.5	.52	30	.29
16	26	.50	1.6	.37	.98	4.2	21	20	1.7	.35	11	.09
17	1.2	.50	1.4	.43	1.3	4.7	26	18	1.8	.28	1.2	.07
18	.60	.62	2.3	.60	1.9	6.5	29	16	2.1	.32	1.0	.08
19	.42	.62	3.0	.66	3.1	5.7	31	14	1.9	.26	.98	.09
20	.17	.62	1.1	.64	5.5	4.7	33	16	2.4	.28	.96	.16
21	.08	.62	.95	.60	7.0	3.7	35	14	.62	.21	.96	.18
22	.07	.62	.85	.60	8.9	4.2	32	14	.42	.12	1.0	.20
23	.08	.74	1.2	.60	11	4.4	30	13	.28	.10	1.1	.76
24	.08	.86	1.1	.66	8.5	4.2	25	10	.31	.10	1.2	1.3
25	.06	1.1	.88	.76	14	5.4	25	9.4	.24	.16	1.1	3.1
26	.08	1.3	1.0	.80	11	6.2	26	7.7	.33	2.8	.98	5.8
27	.08	1.1	1.1	.93	6.1	8.0	29	8.2	.37	11	.90	153
28	.08	.86	1.3	1.0	2.9	7.8	28	8.0	.50	1.0	.90	15
29	.07	.86	1.3	1.0	---	8.2	32	6.5	.52	.41	.90	10
30	.33	1.3	1.4	1.0	---	7.8	35	6.5	.84	.30	.94	3.9
31	.17	---	1.4	.93	---	7.3	---	5.7	---	.34	.96	---
TOTAL	255.07	19.23	47.28	23.73	92.62	118.32	577.6	621.0	48.43	27.92	71.56	406.52
MEAN	8.23	.64	1.53	.77	3.31	3.82	19.3	20.0	1.61	.90	2.31	13.6
MAX	72	1.3	3.0	1.5	14	8.2	35	45	4.7	11	30	153
MIN	.06	.08	.60	.35	.42	.28	8.0	5.7	.24	.10	.40	.07
AC-FT	506	38	94	47	184	235	1150	1230	96	55	142	806

CAL YR 1981 TOTAL 1114.11 MEAN 3.05 MAX 110 MIN .06 AC-FT 2210
WTR YR 1982 TOTAL 2309.28 MEAN 6.33 MAX 153 MIN .06 AC-FT 4580

NOTE.--NO GAGE-HEIGHT RECORD JULY 22 TO SEPT. 8.

09163310 EAST SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1973 to September 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1973 to September 1982 (discontinued).
WATER TEMPERATURES: July 1973 to September 1982 (discontinued).

INSTRUMENTATION.--Water-quality monitor since July 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 13,500 micromhos Apr. 26, 1974; minimum, 488 micromhos May 13, 1978.
WATER TEMPERATURES: Maximum, 33.5ºC June 28, 1979; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 9,900 micromhos Dec. 27; minimum, 560 micromhos Sept. 14.
WATER TEMPERATURES: Maximum, 33.0ºC Sept. 16, 17; minimum, 0.0ºC many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
DEC								
03...	1040	.53	7940	7640	7.9	2.5	9.8	2700
MAR								
24...	0900	6.5	5600	5200	8.6	1.0	8.8	1600
JUN								
15...	0930	1.5	2950	3220	8.1	15.0	8.7	1000

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC									
03...	370	430	1400	12	5.8	540	4700	310	.4
MAR									
24...	200	270	800	8.7	4.9	390	2600	120	.4
JUN									
15...	140	160	450	6.2	3.8	211	1500	110	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC								
03...	14	7570	10.3	10.8	3.6	.030	60	710
MAR								
24...	13	4240	5.8	74.5	.42	.010	120	100
JUN								
15...	10	2500	3.4	9.9	<.10	.090	40	120

09163310 EAST SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4480	4190	7920	7800	7460	4090	3980	2160	2360	2240	3260	2460
2	4840	4460	7990	7220	7510	3930	3970	2040	2430	2670	3070	2310
3	4390	4740	8250	7180	7420	3180	3980	1980	2500	2700	3000	2040
4	2980	4890	9030	7820	7680	3630	3980	1930	2550	3150	2940	2300
5	2550	5000	8820	8040	8110	4190	3980	1910	2590	3380	3040	2230
6	2840	5110	8540	7720	8510	4720	3960	2050	2610	4190	2930	2270
7	3420	5210	8200	7710	8810	5140	3970	2160	2650	4800	2610	2010
8	3970	5320	7930	7700	8700	5370	3960	2290	2710	4860	2580	1910
9	3290	5480	7730	7820	8660	5390	3960	2440	2780	4870	2550	1740
10	3050	5570	7470	8120	8430	5400	3960	2510	2860	4900	2460	1710
11	3510	5660	6930	8470	8250	5330	3950	2590	2910	4910	2240	1640
12	2580	5750	6660	8710	7870	5190	3960	2700	2960	5290	2260	1790
13	2350	5950	6480	8880	7320	4520	3910	2770	3000	6340	2290	1840
14	2830	6130	6550	8990	7290	4660	3850	2860	3020	4840	2690	696
15	2890	6230	6680	9090	7010	4770	3710	2920	3010	4800	2730	684
16	1780	6300	6970	9220	6650	4760	3660	1860	2820	4290	2400	667
17	2360	6400	6930	9250	6230	4750	3610	1880	2660	3890	1890	678
18	2930	6580	7340	9180	5670	4660	3580	1910	2390	4440	1550	694
19	3290	6790	7980	8810	4940	4740	3580	1920	2700	4120	1400	748
20	3760	7040	8030	7770	4110	4830	3600	1930	2610	3980	1240	898
21	4080	7310	6750	7300	3920	4940	3630	1960	2750	6080	1030	1050
22	4250	7520	6100	7040	3440	5060	3650	1970	2740	6260	3170	1210
23	4390	7730	6210	7230	2680	5320	3670	1970	5940	6480	2490	1380
24	4510	7920	7550	7490	3080	5250	3620	2000	6890	6840	2240	1520
25	4590	8140	8370	8080	3140	4840	3490	2040	7050	6860	2450	1660
26	4670	8090	8960	8310	3300	4440	3380	2090	7910	6590	2470	2060
27	4670	7980	9440	7780	3690	4090	3360	2130	6870	3380	2510	1360
28	4710	7880	9730	7410	4020	3930	2940	2170	5810	3360	2560	658
29	4810	7920	9390	7140	---	3980	2890	2210	5770	3350	2550	696
30	4430	7880	9170	7220	---	3960	2480	2250	5620	3980	2490	1130
31	4030	---	8730	7270	---	3950	---	2300	---	3630	2460	---
MEAN	3650	6370	7830	7990	6210	4610	3670	2190	3720	4560	2440	1470

WTR YR 1982 MEAN 4550 MAX 9730 MIN 658

09163310 EAST SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	19.5	13.0	9.5	3.0	4.5	3.0	2.5	1.5	1.0	.0	8.0	2.5
2	16.0	14.5	10.0	4.0	3.5	2.0	2.0	.5	1.0	.0	9.5	5.5
3	15.0	13.0	11.0	4.5	4.0	2.5	2.0	.5	1.0	.0	7.5	4.0
4	14.5	12.0	10.5	4.5	4.0	2.5	1.0	.0	1.0	.0	8.5	2.5
5	16.5	10.0	10.0	4.5	4.0	2.0	1.0	.5	1.0	.0	10.0	.5
6	19.0	10.0	10.0	5.0	4.5	3.0	1.5	.5	1.0	.0	10.5	.0
7	18.5	10.5	10.5	7.5	4.0	3.0	1.0	.0	.5	.0	9.0	.5
8	16.0	12.5	9.5	6.5	4.0	2.5	.5	.0	.5	.0	8.0	1.5
9	16.0	8.5	8.5	5.5	3.5	2.5	.5	.0	.5	.0	13.0	1.0
10	16.5	9.5	7.5	5.0	4.0	2.5	.5	.0	1.5	.0	9.5	3.5
11	14.0	10.0	7.0	4.0	4.0	2.0	.5	.0	1.5	.0	9.0	5.0
12	14.5	7.0	7.0	5.0	3.5	2.0	.5	.0	2.0	.5	13.5	5.5
13	14.0	8.5	7.5	5.5	3.5	2.0	1.0	.0	1.5	.0	13.0	3.5
14	16.0	9.0	8.5	7.0	3.5	2.0	1.0	.0	2.5	.0	9.0	3.5
15	11.0	9.0	8.5	7.0	4.0	2.5	1.0	.0	3.5	1.5	10.0	5.5
16	10.0	7.0	9.5	7.0	3.5	2.0	1.0	.0	2.5	1.0	9.5	5.0
17	14.5	7.0	9.0	6.5	3.5	2.0	1.0	.5	4.5	1.5	12.5	3.5
18	15.5	6.5	8.0	6.0	3.0	2.5	1.5	.5	5.5	.0	13.0	3.5
19	15.5	6.5	7.0	5.0	3.5	2.0	1.5	.5	5.0	.0	9.0	4.5
20	15.0	6.5	6.0	4.0	3.5	2.5	1.0	.0	5.5	.0	8.0	2.0
21	15.0	6.5	6.0	4.0	3.5	1.5	1.0	.5	6.5	.0	10.0	1.5
22	15.0	6.5	6.5	5.0	2.5	1.0	1.0	.0	5.0	.0	11.5	1.0
23	13.5	6.0	7.5	6.0	3.0	1.0	1.0	.0	4.0	.0	12.0	1.5
24	10.0	7.0	8.0	5.5	2.0	1.0	1.0	.0	6.0	.0	13.5	1.5
25	12.0	4.5	7.0	4.5	2.5	1.5	1.5	.0	7.5	.0	14.0	2.5
26	11.5	4.0	4.5	3.5	2.5	1.0	1.5	.0	9.5	.0	9.0	6.0
27	12.5	6.0	5.0	3.5	2.5	1.5	1.5	.0	10.5	1.5	12.0	6.5
28	10.5	6.5	4.5	3.5	2.0	1.0	1.0	.0	12.0	2.5	12.0	6.0
29	10.5	9.0	4.5	3.5	2.0	1.0	1.0	.0	---	---	9.0	5.0
30	9.5	6.0	5.0	3.5	2.5	1.5	1.0	.0	---	---	9.5	3.0
31	9.0	2.5	---	---	2.5	2.0	1.0	.0	---	---	13.0	3.0
MONTH	19.5	2.5	11.0	3.0	4.5	1.0	2.5	.0	12.0	.0	14.0	.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	5.5	19.0	10.0	16.0	14.5	24.0	16.0	30.5	17.0	27.5	16.5
2	9.5	5.5	19.0	11.0	16.0	14.5	25.5	13.5	27.0	19.5	27.0	15.0
3	11.0	4.5	18.0	13.0	16.0	15.0	26.5	14.0	28.0	18.5	27.5	15.0
4	12.5	5.5	17.5	11.5	16.0	15.0	24.5	15.0	26.5	17.5	26.5	16.0
5	10.0	3.5	15.0	9.0	16.0	14.5	19.0	14.5	27.5	18.5	26.0	17.5
6	11.5	4.5	14.5	6.0	15.5	14.0	22.5	12.5	29.5	18.5	25.5	15.0
7	8.5	4.5	15.5	7.0	15.0	14.0	22.5	14.0	27.5	19.5	22.5	15.5
8	11.0	1.0	17.5	9.0	15.0	14.5	22.0	16.5	27.0	20.0	25.5	15.5
9	13.5	2.0	14.5	9.5	15.5	14.5	22.0	16.5	26.0	19.5	25.5	14.0
10	14.0	1.5	16.0	8.0	15.5	15.0	23.5	16.0	27.0	19.0	22.5	16.0
11	13.5	4.5	15.0	8.0	16.0	15.5	23.0	16.0	25.0	20.0	16.5	13.5
12	18.0	8.0	11.0	8.0	16.5	15.5	24.5	16.5	26.5	19.0	20.0	12.0
13	18.5	8.0	16.5	8.0	16.5	16.0	25.5	16.5	23.0	19.5	14.0	10.0
14	18.0	7.0	17.5	7.0	16.0	15.5	23.5	17.0	29.5	18.5	12.0	7.0
15	15.5	6.5	17.0	8.0	16.5	15.5	22.5	16.5	30.5	13.5	30.0	7.5
16	12.0	7.0	17.0	9.0	19.5	15.5	22.0	16.0	25.5	16.0	33.0	9.0
17	11.0	7.0	15.5	11.5	17.5	16.0	24.5	17.5	23.5	14.0	33.0	11.5
18	10.5	8.5	15.5	14.0	18.0	16.0	27.0	17.0	23.5	15.0	29.5	9.5
19	10.5	8.5	15.0	14.0	22.0	15.5	28.0	17.5	23.5	13.0	31.0	9.0
20	9.5	7.5	15.0	13.5	22.5	13.5	28.0	17.5	24.0	15.0	23.0	11.5
21	9.0	6.0	15.0	13.5	19.0	15.0	29.0	16.5	23.5	17.0	27.0	10.0
22	10.0	6.5	15.0	14.0	18.5	15.0	29.0	17.5	29.0	17.5	29.5	10.5
23	11.0	9.0	15.5	14.5	23.0	15.0	28.5	18.0	28.5	16.0	31.5	11.0
24	17.0	8.0	15.5	14.5	24.0	14.5	28.0	19.0	26.5	14.5	31.5	8.5
25	17.5	8.0	15.5	14.5	23.0	15.0	28.0	20.0	20.5	17.5	23.0	12.5
26	16.5	9.5	16.0	15.0	23.5	14.5	28.0	20.5	26.5	16.5	24.5	16.0
27	17.0	9.0	16.5	15.0	24.0	16.0	30.5	20.5	28.5	16.0	16.5	11.0
28	18.5	7.5	16.5	15.0	24.0	16.5	30.0	19.0	27.0	17.5	12.5	10.0
29	16.0	9.5	16.0	14.5	22.0	17.0	30.0	18.0	28.0	17.0	13.5	9.0
30	16.5	7.5	16.0	15.0	21.5	17.5	30.5	17.5	27.0	17.0	19.5	9.5
31	---	---	15.5	14.0	---	---	31.0	16.5	27.0	15.5	---	---
MONTH	18.5	1.0	19.0	6.0	24.0	13.5	31.0	12.5	30.5	13.0	33.0	7.0

09163340 MACK WASH NEAR MACK, CO

LOCATION.--Lat 39°15'57", long 108°50'32", in NE¼NW¼ sec.8, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank just downstream from culvert under R Road, 0.2 mi (0.3 km) downstream from Highline Lake dam, and 3.1 mi (5.0 km) north of Mack.

DRAINAGE AREA.--15.9 mi² (41.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to September 1982 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,615 ft (1,407 m), from topographic map.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow regulated at times by Highline Lake, capacity, 3,400 acre-ft (4.19 hm³). Mack Mesa Lake, capacity, 131 acre-ft (162,000 m³) is on a tributary to Highline Lake. Natural flow of stream affected by several small detention reservoirs and stock ponds on tributaries upstream. Flows include water wasted into Highline Lake from Government Highline Canal just below Lateral No. 48.

AVERAGE DISCHARGE.--9 years, 25.5 ft³/s (0.722 m³/s), 18,470 acre-ft/yr (22.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 234 ft³/s (6.63 m³/s) Sept. 28, 1982; minimum daily, 1.0 ft³/s (0.028 m³/s) Feb. 27 to Mar. 2, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined, maximum daily discharge, 234 ft³/s (6.63 m³/s) Sept. 28; minimum daily, 1.0 ft³/s (0.028 m³/s) Feb. 27 to Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	3.4	1.7	1.2	1.6	1.0	1.5	4.1	81	9.1	2.1	29
2	60	3.2	1.7	1.2	1.6	1.0	1.5	3.7	87	5.7	3.9	22
3	73	3.1	1.7	1.2	1.6	1.2	1.5	3.6	59	5.0	6.9	23
4	80	3.0	1.3	1.2	1.6	1.8	1.5	6.9	38	7.3	8.7	26
5	86	2.9	1.2	1.2	1.6	1.8	1.5	11	33	14	10	34
6	108	2.8	1.2	1.2	1.6	1.8	1.5	13	40	19	14	49
7	125	2.7	1.2	1.2	1.6	1.8	1.5	10	46	22	13	59
8	138	2.6	1.2	1.2	1.6	2.0	1.5	10	38	17	7.9	75
9	145	2.6	1.2	1.2	1.6	2.2	1.5	12	30	10	5.3	74
10	128	2.5	1.2	1.3	1.5	2.4	27	17	35	7.1	3.8	68
11	148	2.4	1.3	1.3	1.7	2.5	187	20	38	6.3	3.0	101
12	175	2.4	1.2	1.3	1.7	2.6	191	19	37	5.8	2.7	143
13	180	2.3	1.3	1.3	1.6	2.8	101	24	23	7.1	3.1	166
14	175	2.3	1.2	1.3	1.7	2.5	28	33	14	9.7	13	185
15	170	2.2	1.2	1.3	1.7	2.6	77	33	8.0	9.1	38	185
16	170	2.2	1.2	1.3	1.8	2.9	110	36	4.8	5.5	53	177
17	180	2.2	1.2	1.2	1.8	3.0	40	43	4.5	3.9	37	178
18	190	2.1	1.2	1.2	1.8	3.6	21	40	3.8	3.4	31	181
19	200	2.1	1.3	1.2	1.8	2.6	39	22	3.5	3.2	28	183
20	190	2.0	1.3	1.2	1.7	2.5	36	22	6.8	2.8	30	185
21	170	2.0	1.3	1.1	1.7	2.2	48	16	23	2.8	37	180
22	110	1.9	1.3	1.1	1.7	2.0	59	12	63	2.5	52	185
23	80	1.9	1.3	1.1	1.7	1.7	53	10	74	2.9	59	185
24	30	1.8	1.4	1.3	1.6	1.5	34	9.9	72	6.0	57	180
25	10	1.8	1.3	1.5	1.4	1.5	19	14	68	5.0	44	180
26	8.0	1.8	1.1	1.5	1.2	1.5	18	18	61	3.8	50	175
27	5.1	1.7	1.1	1.5	1.0	1.5	14	22	50	3.1	51	200
28	4.5	1.7	1.1	1.5	1.0	1.5	10	24	47	2.6	49	234
29	4.1	1.7	1.1	1.6	---	1.5	6.3	32	30	2.5	52	194
30	3.8	1.7	1.2	1.6	---	1.5	4.7	44	19	2.1	54	180
31	3.6	---	1.2	1.6	---	1.5	---	61	---	1.9	47	---
TOTAL	3215.1	69.0	39.4	40.1	44.5	62.5	1136.5	646.2	1137.4	208.2	866.4	4036
MEAN	104	2.30	1.27	1.29	1.59	2.02	37.9	20.8	37.9	6.72	27.9	135
MAX	200	3.4	1.7	1.6	1.8	3.6	191	61	87	22	59	234
MIN	3.6	1.7	1.1	1.1	1.0	1.0	1.5	3.6	3.5	1.9	2.1	22
AC-FT	6380	137	78	80	88	124	2250	1280	2260	413	1720	8010

CAL YR 1981 TOTAL 10126.4 MEAN 27.7 MAX 200 MIN 1.1 AC-FT 20090
WTR YR 1982 TOTAL 11501.3 MEAN 31.5 MAX 234 MIN 1.0 AC-FT 22810

NOTE.--NO GAGE-HEIGHT RECORD OCT. 15 TO DEC. 3.

09163340 MACK WASH NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1973 to Sept. 30, 1982 (discontinued).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1973 to Sept. 30, 1982 (discontinued).
WATER TEMPERATURES: July 1973 to Sept. 30, 1982 (discontinued).

INSTRUMENTATION.--Water-quality monitor since July 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 5,990 micromhos Nov. 6, 1979; minimum observed, 635 micromhos September 28, 1982.
WATER TEMPERATURES: Maximum, 26.0°C July 22, 24, 1976; minimum, 1.5°C Feb. 17-19, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,820 micromhos Jan. 25, 26; minimum observed, 635 micromhos Sept. 28.
WATER TEMPERATURES: Maximum, 23.5°C July 24; minimum, 4.0°C Jan. 7, 8, Feb. 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
DEC								
03...	1220	1.7	3600	3960	7.8	8.0	9.0	1900
MAR								
24...	1030	1.5	3450	3400	7.8	8.5	7.6	1900
JUN								
15...	1245	6.6	1460	1700	8.1	20.5	7.9	690

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC									
03...	530	150	240	2.4	6.9	260	2100	80	.3
MAR									
24...	500	150	240	2.4	7.2	180	1900	180	.3
JUN									
15...	190	53	110	1.9	3.5	151	610	110	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC								
03...	11	3300	4.5	15.2	5.0	.020	50	100
MAR								
24...	11	3110	4.2	12.3	2.2	.010	50	120
JUN								
15...	8.6	1180	1.6	20.9	.87	.030	< 3	17

09163340 MACK WASH NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290		---	3680	3680	3600	3540	2110	972	1260		---
2	1300		---	3700	3670	3600	3520	2330	994	1710		---
3	1280		---	3730	3640	3600	3520	2280	986	1840		---
4	1280		3640	3720	3660	3600	3510	1510	1010	1280		---
5	1260		3620	3670	3640	3600	3520	1280	1000	1070		---
6	1260		3620	3690	3630	3600	3520	1200	1030	938		---
7	1250		3620	3730	3620	3570	3520	1290	1050	873		---
8	1250		3620	3730	3590	3620	3520	1280	1040	1050		---
9	1240		3620	3720	3550	3620	3520	1210	1030	1170		995
10	1230		3620	3720	3570	---	2440	1180	1060	1300		1010
11	1210		---	3710	3560	3620	1100	1120	1080	1470		987
12	1220		---	3720	3570	3620	1110	1150	1080	1550		984
13	1200		---	3710	3570	3630	1110	1220	1140	1360		993
14	---		---	3710	3570	3610	1190	1160	1330	1120		984
15	---		3680	3750	3570	3630	1100	1140	1690	1240		989
16	---		3680	3740	3570	3650	1070	1090	2060	1650		977
17	---		3690	3740	3570	3630	1120	1080	2220	2200		969
18	---		3690	3740	3570	3620	1200	1080	2640	2510		959
19	---		3680	3750	3580	3630	---	1120	2750	2720		957
20	---		3690	3750	3590	3630	---	1140	1610	3060		989
21	---		3650	3750	3580	---	---	1260	1030	3170		1030
22	---		3680	3760	3590	---	1100	1240	895	3340		1020
23	---		3710	3760	3600	---	1060	1330	916	2800		1020
24	---		3700	3770	3590	3500	1120	1290	906	1360		938
25	---		3700	3770	3590	3520	1170	1190	895	1810		800
26	---		3710	3750	3600	3530	1160	1160	887	2060		796
27	---		3700	3730	3600	3540	1220	1170	902	2530		784
28	---		3720	3730	3610	3520	1330	1180	896	2820		772
29	---		3710	3700	---	3540	1570	1170	866	3120		794
30	---		3700	3700	---	3520	1860	1090	998	3250		797
31	---		3680	3690	---	3520	---	1010	---	3260		---
MEAN				3730	3600	3590	2030	1290	1230	1960		

09163340 MACK WASH NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.0	17.5			---	---	9.5	7.5	10.0	6.5	---	---
2	17.5	17.0			---	---	8.5	6.5	10.0	6.5	10.5	8.0
3	17.0	16.5			---	---	8.0	6.0	8.5	7.0	11.5	7.0
4	17.0	16.5			10.0	7.5	8.0	5.5	9.0	5.5	12.5	7.0
5	17.0	16.0			10.5	8.0	9.0	6.5	8.0	4.5	11.5	7.0
6	17.5	16.0			10.0	7.5	8.5	5.5	8.5	4.0	11.0	7.5
7	---	---			10.0	7.5	8.0	4.0	8.5	4.5	12.5	7.5
8	16.0	15.5			10.0	7.5	7.5	4.0	9.0	5.5	11.0	8.5
9	16.0	15.5			10.0	7.5	8.0	5.5	9.0	7.5	11.0	8.5
10	15.5	15.0			10.0	8.0	8.0	5.0	10.5	6.5	---	---
11	15.0	14.0			---	---	7.5	5.5	10.5	7.0	11.5	9.0
12	14.5	14.0			---	---	8.0	5.5	11.0	7.0	11.0	8.5
13	14.0	13.5			---	---	8.5	6.0	10.0	6.0	13.5	8.0
14	---	---			---	---	8.5	5.5	10.0	7.0	13.5	8.0
15	---	---			10.5	8.0	8.5	5.5	10.5	8.5	13.0	7.5
16	---	---			10.0	7.5	9.0	6.0	9.5	8.0	13.0	7.0
17	---	---			9.5	7.0	9.5	6.0	11.5	8.5	13.0	7.0
18	---	---			9.0	7.0	9.5	6.5	12.0	7.5	13.5	7.0
19	---	---			10.0	8.0	10.0	6.5	12.0	7.0	13.5	7.0
20	---	---			10.5	8.0	9.0	6.5	12.0	7.0	13.5	7.0
21	---	---			9.0	8.0	9.0	7.0	12.5	7.5	---	---
22	---	---			9.5	7.5	9.0	6.5	12.5	7.5	---	---
23	---	---			8.5	6.5	9.0	5.5	11.5	8.0	---	---
24	---	---			8.0	6.5	9.0	6.0	12.0	7.5	14.0	9.0
25	---	---			8.5	7.0	9.5	5.5	13.0	8.0	14.5	7.5
26	---	---			8.0	6.0	10.0	6.5	12.5	7.5	10.5	9.0
27	---	---			9.0	7.0	10.5	7.0	12.5	8.0	12.5	9.5
28	---	---			8.5	6.0	10.0	6.5	13.5	8.0	13.0	8.5
29	---	---			8.5	6.5	9.5	7.5	---	---	9.5	8.0
30	---	---			10.0	7.5	10.0	6.0	---	---	12.0	7.5
31	---	---			9.0	7.5	10.0	6.5	---	---	15.0	7.5
MONTH							10.5	4.0	13.5	4.0	15.0	7.0

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	8.5	17.0	11.0	16.5	14.5	19.5	17.0			---	---
2	13.0	6.5	17.5	11.0	16.5	15.0	20.0	15.5			---	---
3	14.0	7.5	16.5	12.0	16.5	15.0	21.0	15.0			---	---
4	14.5	7.5	16.5	13.0	17.0	14.0	21.5	17.0			---	---
5	13.0	6.5	15.5	13.5	16.5	14.0	19.5	18.0			---	---
6	13.5	8.0	15.0	12.5	17.5	14.5	20.5	17.0			---	---
7	11.5	8.0	15.0	12.0	16.5	14.0	21.5	18.5			---	---
8	13.5	7.0	15.0	12.0	16.0	14.5	21.0	19.0			---	---
9	14.5	7.5	13.5	12.0	17.5	14.0	21.0	18.0			20.5	19.5
10	13.0	7.0	13.5	12.0	18.0	15.0	21.0	17.0			21.0	19.5
11	8.5	8.0	13.0	12.0	17.5	16.0	21.0	17.5			19.5	19.0
12	9.5	7.5	13.0	12.0	19.5	16.0	21.5	17.0			19.0	18.0
13	10.0	8.5	13.5	12.0	19.0	16.5	22.0	18.0			18.5	17.0
14	11.5	8.5	14.5	12.0	19.0	15.5	22.5	19.0			17.5	16.5
15	11.0	9.0	14.5	13.0	19.5	15.0	21.5	18.5			17.5	16.0
16	12.0	10.5	14.5	13.0	19.5	14.0	21.0	17.0			17.5	16.0
17	12.0	9.5	14.5	12.5	19.5	14.0	20.5	16.0			17.5	16.0
18	12.0	9.5	15.0	13.0	17.5	13.5	20.5	15.0			17.5	17.0
19	---	---	15.0	13.5	18.0	12.0	20.5	15.0			17.5	16.0
20	---	---	15.5	13.5	20.5	14.5	20.0	14.0			17.5	16.0
21	---	---	16.5	14.0	21.0	18.0	20.0	13.5			17.5	15.0
22	12.0	9.0	17.0	15.0	21.5	19.0	18.0	13.0			17.5	16.0
23	11.0	10.0	17.0	15.0	20.5	19.0	20.0	13.0			18.5	16.5
24	11.5	9.5	17.5	15.0	20.5	19.0	23.5	19.5			18.5	15.0
25	13.5	10.0	17.5	15.0	20.5	19.0	22.5	19.0			15.5	15.0
26	14.5	12.0	18.0	15.0	20.0	18.0	22.0	17.0			15.5	15.0
27	13.0	11.5	17.5	15.5	20.5	19.0	21.5	16.0			16.0	15.0
28	15.0	11.5	16.5	14.0	23.0	19.0	19.0	15.0			16.0	15.0
29	14.5	11.5	17.5	15.0	22.0	18.5	19.5	14.0			15.5	14.5
30	15.5	11.0	16.5	15.0	21.5	17.0	19.5	13.0			14.5	14.0
31	---	---	17.5	15.0	---	---	19.5	12.5			---	---
MONTH	15.5	6.5	18.0	11.0	23.0	12.0	23.5	12.5				

09163490 SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°13'18", long 108°53'32", in NE¼NW¼ sec.4, T.10 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 800 ft (240 m) downstream from bridge on Interstate Highway 70, 1.4 mi (2.3 km) west of Mack, and 2.1 mi (3.4 km) upstream from mouth.

DRAINAGE AREA.--436 mi^2 (1,129 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline Canal. Some regulation by many small detention reservoirs and stock ponds on tributaries above station and by Highline Lake, capacity, 3,400 acre-ft (4.19 hm^3) on Mack Wash above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--9 years, 90.9 ft^3/s (2.574 m^3/s), 65,860 acre-ft/yr (81.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft^3/s (44.7 m^3/s) Aug. 8, 1974, gage height, 5.57 ft (1.698 m), from rating curve extended above 270 ft^3/s (7.6 m^3/s), on basis of slope-area measurement at gage height 5.69 ft (1.734 m); minimum daily, 4.2 ft^3/s (0.12 m^3/s) Jan. 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage of 5.69 ft (1.73 m) Sept. 19, 1972, from floodmarks, discharge, 1,680 ft^3/s (47.6 m^3/s), by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft^3/s (40.8 m^3/s) at 0200 Aug. 16, gage height, 5.42 ft (1.652 m); minimum daily, 7.3 ft^3/s (0.21 m^3/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	32	17	15	9.8	16	9.8	91	160	101	83	140
2	268	32	17	14	9.6	15	12	93	161	79	86	140
3	340	29	17	13	9.0	15	11	101	142	81	95	150
4	431	27	17	12	8.2	14	11	116	128	88	99	160
5	380	26	17	13	7.6	13	11	135	125	104	100	170
6	300	26	16	12	7.3	12	11	135	135	111	107	180
7	250	24	16	12	7.6	12	12	134	135	115	106	190
8	260	21	15	12	7.8	13	11	129	127	108	100	200
9	250	20	16	12	8.0	13	9.9	126	117	99	101	220
10	230	20	17	12	8.8	13	10	130	122	96	93	330
11	260	21	17	12	10	13	84	130	129	98	100	310
12	340	20	17	12	10	14	240	122	124	95	95	238
13	290	19	17	12	12	12	250	120	124	96	137	233
14	282	19	17	12	10	12	110	135	117	97	182	252
15	400	19	17	12	14	12	88	131	105	95	169	261
16	363	18	17	12	17	12	170	139	100	90	349	256
17	288	18	16	12	23	12	230	146	103	87	161	259
18	287	17	17	11	27	11	140	139	98	82	154	255
19	292	17	18	11	34	11	82	126	98	81	162	269
20	302	17	17	11	33	11	130	122	107	70	168	276
21	286	17	17	11	31	11	120	114	126	72	169	293
22	256	18	17	11	31	12	170	110	154	74	174	287
23	221	16	16	10	33	11	147	113	159	76	180	310
24	177	16	15	11	28	10	133	108	159	84	180	325
25	153	17	15	11	19	11	123	106	156	86	170	360
26	132	17	15	11	19	11	118	113	150	78	170	272
27	105	17	15	11	18	14	114	112	142	98	180	261
28	80	18	14	11	17	13	105	116	136	83	170	237
29	53	18	14	11	---	12	93	124	119	92	180	245
30	40	20	15	10	---	13	91	135	107	87	180	270
31	35	---	14	10	---	10	---	152	---	82	150	---
TOTAL	7592	616	502	362	469.7	384	2846.7	3803	3865	2785	4550	7349
MEAN	245	20.5	16.2	11.7	16.8	12.4	94.9	123	129	89.8	147	245
MAX	431	32	18	15	34	16	250	152	161	115	349	360
MIN	35	16	14	10	7.3	10	9.8	91	98	70	83	140
AC-FT	15060	1220	996	718	932	762	5650	7540	7670	5520	9020	14580

CAL YR 1981 TOTAL 33334.8 MEAN 91.3 MAX 440 MIN 8.2 AC-FT 66120
WTR YR 1982 TOTAL 35124.4 MEAN 96.2 MAX 431 MIN 7.3 AC-FT 69670

09163490 SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1973 to current year.
WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 6,760 micromhos Jan. 8, 1977; minimum, 622 micromhos Apr. 28, 1979.
WATER TEMPERATURES: Maximum, 36.5°C July 17, 1976; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 5,700 micromhos Mar. 9; minimum, 590 micromhos Sept. 14.
WATER TEMPERATURES: Maximum, 27.0°C Sept. 11; minimum, 0.0°C many days during December to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)
DEC								
03...	1450	16	4830	5090	8.5	2.5	11.1	2500
MAR								
24...	1300	9.6	4840	4700	8.4	10.0	9.5	2200
JUN								
15...	1420	103	1220	1710	8.3	21.0	8.3	610

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
DEC									
03...	550	280	480	4.2	8.8	300	2900	250	.3
MAR									
24...	430	280	550	5.1	8.9	240	2800	220	.3
JUN									
15...	150	57	110	2.1	3.5	156	620	76	.3

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
DEC								
03...	11	4690	6.4	200	7.0	.030	40	210
MAR								
24...	10	4460	6.1	116	4.1	.010	90	160
JUN								
15...	8.2	1120	1.5	311	1.1	.060	7	11

09163490 SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2580	4760	5020	4940	3370	4110	1690	1580	1410	1970	---
2	---	2660	4830	5040	4940	3440	3960	1660	1570	1470	1930	---
3	---	2760	4840	5150	4920	3500	3940	1660	1560	1510	1920	---
4	---	2880	4840	5310	4880	3540	3950	1640	1540	1530	1940	---
5	---	2980	4930	4960	5010	4350	3950	1610	1550	1510	1940	---
6	---	3070	4960	4850	5040	5250	3930	1580	1550	1520	1920	---
7	---	3160	4930	5210	4960	5540	3910	1540	1550	1540	1920	---
8	---	3240	4950	5400	4780	5590	3880	1510	1540	1570	1920	---
9	---	3330	4960	5250	4720	5560	3900	1510	1530	1620	1930	---
10	---	3410	4980	5140	4610	5510	3880	1500	1530	1660	1950	---
11	---	3500	5020	5070	4610	5450	2840	1510	1520	1680	1960	1260
12	---	3580	4970	5020	4620	5370	2410	1520	1500	1700	2000	1500
13	---	3660	4960	4990	4720	4610	2220	1550	1470	1750	2150	1070
14	1320	3720	4950	5020	4710	4430	2260	1590	1450	1780	2190	926
15	1210	3770	4960	5060	4600	4450	2220	1600	1330	1820	1810	1430
16	1120	3840	4970	5020	4390	4460	2020	1610	1020	1840	1630	1490
17	1160	3900	5010	4980	3980	4510	1890	1600	1030	1890	1510	1720
18	1220	3970	4960	4970	3280	4550	1780	1620	1060	1940	---	1650
19	1260	4030	4850	4960	2930	4560	1700	1670	1110	1990	---	1380
20	1320	4090	4880	5010	2710	4610	1650	1680	1110	2040	---	1130
21	1370	4150	4980	4980	2650	4740	1630	1680	1100	2080	---	997
22	1440	4220	4950	5010	2720	4910	1620	1680	1140	2070	---	1960
23	1500	4280	4980	5090	2800	4960	1620	1690	1140	2040	---	1560
24	1580	4340	5020	5090	2880	4990	1630	1680	1150	1920	---	1310
25	1670	4400	4950	5090	2970	4970	1640	1670	1160	1870	---	1530
26	1760	4460	5060	5090	3080	4810	1540	1670	1190	1900	---	2220
27	1880	4530	4980	5090	3180	4490	1670	1660	1220	2310	---	1320
28	2000	4580	5120	5090	3280	4220	1660	1670	1250	2150	---	1180
29	2140	4640	5190	4840	---	4220	1660	1650	1300	2080	---	1230
30	2360	4700	5100	4860	---	4020	1670	1630	1370	2020	---	---
31	2500	---	5120	4940	---	4100	---	1620	---	2010	---	---
MEAN	1600	3750	4970	5050	4030	4620	2560	1620	1340	1810	1920	1410

WTR YR 1982 MEAN 3030 MAX 5590 MIN 926

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.5	13.0	9.5	4.0	3.0	.0	4.0	1.0	---	---	7.5	2.0
2	16.5	15.0	10.0	4.5	3.0	.0	1.5	.0	---	---	10.0	5.0
3	17.0	14.5	10.5	5.0	3.0	.0	.0	.0	---	---	8.0	5.0
4	15.5	14.0	10.5	4.5	3.0	.0	.0	.0	---	---	8.5	4.0
5	---	---	10.0	4.5	5.0	1.0	.0	.0	---	---	8.5	2.5
6	---	---	9.5	5.0	4.5	.0	.0	.0	---	---	9.5	.0
7	---	---	11.0	7.5	4.5	.0	.0	.0	.0	.0	9.0	.5
8	---	---	10.5	5.5	4.0	.0	.0	.0	.0	.0	8.0	2.0
9	---	---	9.5	4.5	4.0	.0	.0	.0	.0	.0	10.0	2.0
10	---	---	9.0	3.5	5.0	1.5	.0	.0	.0	.0	9.0	4.0
11	---	---	8.5	3.5	5.5	1.5	.0	.0	.0	.0	8.5	5.0
12	---	---	8.0	3.0	5.0	.5	.0	.0	.5	.0	12.5	5.0
13	---	---	9.0	4.0	6.0	2.0	.0	.0	1.0	.0	11.0	4.0
14	14.5	12.0	9.5	5.5	4.5	1.0	.0	.0	1.5	.0	9.5	4.5
15	12.5	10.0	9.5	5.0	5.0	1.5	.0	.0	4.5	1.5	10.5	6.5
16	12.5	10.0	9.5	4.5	4.5	.5	.0	.0	3.5	1.5	9.5	6.0
17	13.5	10.5	8.5	3.5	3.5	.0	.0	.0	6.0	.5	12.5	4.5
18	13.5	10.5	8.0	4.5	1.5	.0	.0	.0	7.0	.5	12.5	4.5
19	13.5	10.0	6.0	1.5	4.0	.5	.0	.0	6.0	.0	10.5	4.0
20	13.5	10.0	5.0	1.0	5.5	1.5	.0	.0	7.0	.0	10.5	2.0
21	13.0	10.0	5.5	2.0	3.5	1.0	.0	.0	8.0	.5	11.0	1.5
22	13.0	9.5	7.0	3.0	3.5	.5	.0	.0	7.5	1.0	12.0	.0
23	12.5	9.0	7.5	4.5	1.5	.0	.0	.0	6.5	2.0	12.0	1.5
24	10.5	9.0	7.5	3.0	.0	.0	.0	.0	7.0	1.5	12.5	2.0
25	11.5	7.0	5.0	3.5	.5	.0	.0	.0	9.0	2.0	12.5	3.0
26	11.5	6.5	4.5	.5	.0	.0	.0	.0	8.5	2.0	9.5	6.5
27	12.0	7.5	2.5	.0	2.0	.0	---	---	10.0	2.0	11.0	7.0
28	10.5	7.0	5.0	2.0	.0	.0	---	---	11.0	3.5	12.5	5.0
29	11.0	9.0	5.0	3.0	.0	.0	---	---	---	---	8.0	4.0
30	10.0	7.0	5.5	2.5	3.5	.0	---	---	---	---	9.5	3.0
31	9.0	4.5	---	---	3.0	1.0	---	---	---	---	13.5	2.5
MONTH	18.5	4.5	11.0	.0	6.0	.0	4.0	.0	11.0	.0	13.5	.0

09163490 SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	5.0	19.0	10.0	19.0	11.5	22.5	15.0	23.5	15.0	---	---
2	11.0	2.5	18.5	10.0	19.5	11.5	22.5	12.5	22.0	17.0	---	---
3	13.0	3.0	18.0	12.0	20.0	11.5	22.0	12.0	23.5	15.5	---	---
4	13.5	4.5	18.0	11.5	20.0	10.0	19.5	12.5	23.5	15.0	---	---
5	11.5	2.5	16.5	12.5	19.0	10.0	18.0	12.0	23.5	15.0	---	---
6	12.5	4.5	16.0	7.0	19.0	9.5	24.0	12.0	24.5	15.0	---	---
7	11.0	5.0	16.0	7.0	19.5	9.5	26.0	15.0	24.5	17.0	---	---
8	11.5	1.5	17.0	9.0	19.5	10.0	25.5	19.0	23.0	17.0	---	---
9	13.0	3.5	14.0	9.5	20.5	10.0	24.0	17.0	23.0	17.0	---	---
10	13.5	3.0	16.0	8.0	21.0	10.0	25.0	16.5	23.0	16.5	---	---
11	10.0	6.5	14.5	9.0	22.5	12.0	24.5	15.0	21.5	17.0	27.0	22.5
12	12.5	7.0	11.5	9.0	21.5	13.5	25.0	15.5	22.5	16.5	25.0	21.5
13	15.0	8.5	15.0	8.5	21.0	14.0	25.0	16.5	19.5	17.0	21.5	17.0
14	16.5	6.5	17.5	8.0	21.0	12.0	25.5	15.0	22.5	17.0	20.5	19.0
15	16.0	7.5	17.0	9.0	20.0	13.0	24.5	15.0	23.0	15.0	24.0	19.0
16	14.0	8.5	17.5	8.5	23.0	12.0	24.5	14.5	20.5	15.5	24.0	19.5
17	15.0	7.0	19.5	9.5	22.0	14.5	24.5	17.0	21.0	17.0	24.0	20.5
18	15.0	7.5	18.5	11.5	21.0	15.0	24.0	15.0	21.5	17.5	24.0	20.0
19	12.5	6.5	16.5	11.5	21.5	14.0	24.0	15.0	21.5	17.0	23.5	19.0
20	10.0	5.0	20.0	10.0	22.5	12.5	24.5	15.5	21.5	15.0	22.0	19.0
21	12.5	3.5	20.5	10.0	21.5	14.0	25.0	15.0	22.0	15.0	22.5	18.5
22	14.0	5.0	20.5	10.5	22.5	15.0	24.5	17.0	---	---	23.0	19.0
23	12.5	8.0	21.0	12.0	21.5	15.5	25.0	17.0	---	---	23.0	19.0
24	16.0	7.0	20.0	12.0	24.0	15.0	23.5	17.0	---	---	22.0	18.5
25	15.5	7.5	21.0	11.5	23.0	15.0	25.5	17.0	---	---	19.5	17.5
26	16.0	9.0	21.5	12.0	24.0	14.5	24.0	18.5	---	---	20.5	17.5
27	16.0	9.5	20.5	12.0	25.0	15.0	24.5	19.0	---	---	17.5	15.0
28	18.5	8.5	17.0	10.0	25.0	15.5	22.5	17.5	---	---	16.0	14.5
29	16.0	10.0	21.5	10.0	23.0	15.0	23.0	17.5	---	---	15.5	13.5
30	16.5	8.0	17.5	12.0	21.5	15.5	24.0	15.5	---	---	16.5	13.0
31	---	---	20.0	10.0	---	---	24.0	15.0	---	---	---	---
MONTH	18.5	1.5	21.5	7.0	25.0	9.5	26.0	12.0	24.5	15.0	27.0	13.0
YEAR	27.0	.0										

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE

LOCATION.--Lat 39°07'45", long 109°01'36", in SE¼NW¼ sec. 5, T. 11 S., R. 104 W., Mesa County, Hydrologic Unit 14010005, on right bank 0.7 mi (1.1 km) downstream from McDonald Creek, 12 mi (19 km) southwest of Mack, Colo., and 1.5 mi (2.4 km) upstream from Colorado-Utah State line.

DRAINAGE AREA.--17,843 mi^2 (46,213 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,325 ft (1,318 m), from topographic map. May 1951, to October 1979, water-stage recorder at site 5.7 mi (9.2 km) upstream at different datum.

REMARKS.--Records good, except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation. (records include all return flow from irrigated areas.)

AVERAGE DISCHARGE.--31 years, 5,736 ft^3/s (162.4 m^3/s), 4,156,000 acre-ft/yr (5,120 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,800 ft^3/s (1,610 m^3/s) June 9, 1957, gage height, 16.40 ft (4.999 m), site and datum then in use; minimum daily, 960 ft^3/s (27.2 m^3/s) Sept. 7, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,300 ft^3/s (547 m^3/s) at 0100 June 20, gage height, 7.74 ft (2.359 m); minimum daily, 2,280 ft^3/s (64.6 m^3/s) Jan. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2690	4200	3460	3380	3450	4290	3730	7850	16500	16000	6090	4450
2	2750	4080	3430	3370	3500	4410	3690	9570	16500	16300	5560	4010
3	3260	4090	3130	3250	3540	4620	3700	11900	16300	15500	5660	3750
4	3360	3800	3190	3870	3560	4830	3640	15200	15900	14400	5410	3640
5	4010	3450	3350	2760	3260	4680	3640	17100	15500	13800	5160	3780
6	4480	3500	3330	3040	2880	4380	3590	17600	16300	12900	4790	4330
7	4120	3810	3260	3080	2650	4120	3580	14300	16500	11800	4570	4490
8	3810	3680	3210	2350	2920	4020	3470	12200	15700	10900	4280	4450
9	3780	3670	3180	2280	3390	4030	3090	11200	15800	10100	4570	4770
10	3800	3610	3200	2290	3720	3850	2960	11200	15800	9960	4470	4870
11	3820	3570	3120	2840	3840	4060	3090	10900	16400	9360	4780	5530
12	3980	3470	3170	2900	4020	4260	3210	11000	16000	9070	4800	5830
13	4080	3250	3170	2950	3900	4810	4280	11600	16600	8680	4820	6670
14	4100	3150	3090	2950	3800	4830	5850	11800	17100	8210	5170	7820
15	4280	3110	2880	3000	3870	4650	6140	10500	16400	7710	5440	7360
16	5490	3100	3090	3000	3930	4670	6630	9470	16200	7340	5710	7010
17	4850	3080	3210	3000	4040	4640	6550	8380	15600	7040	5180	6750
18	4380	3610	3200	3050	4200	4540	6010	8100	16200	6800	5050	6500
19	4200	3610	3070	3000	4260	4480	6090	8420	18600	6560	5050	6500
20	4120	3520	2860	3000	4200	4400	6190	9380	18600	6200	4800	6490
21	4150	3430	3170	3000	4210	4330	5550	9610	17400	5890	4570	6600
22	4110	3410	3620	2950	4270	4320	4850	10300	16700	5620	4560	6570
23	4080	3500	3380	2900	4310	4190	4430	12300	15900	5360	4700	6160
24	4010	3520	3070	2850	4310	3950	4780	13200	16000	5300	5030	5890
25	3970	3510	2610	2800	4340	4020	4850	13900	16400	5250	5570	5910
26	4090	3450	2690	2900	4360	3710	5150	13800	16100	5260	5840	5790
27	4050	3410	2770	2920	4290	3710	5670	13900	16100	5150	6030	6410
28	4040	3440	3040	2920	4240	3770	6160	15800	16400	5420	5720	6600
29	4230	3330	2890	2960	---	3720	6730	16800	15100	6460	5510	6770
30	4140	3470	2940	3440	---	3860	7790	17600	16500	6850	5140	6360
31	4290	---	3280	3400	---	3800	---	17700	---	6650	4850	---
TOTAL	124520	105830	97060	92400	107260	131950	145090	382580	491100	271840	158880	172060
MEAN	4017	3528	3131	2981	3831	4256	4836	12340	16370	8769	5125	5735
MAX	5490	4200	3620	3870	4360	4830	7790	17700	18600	16300	6090	7820
MIN	2690	3080	2610	2280	2650	3710	2960	7850	15100	5150	4280	3640
AC-FT	247000	209900	192500	183300	212800	261700	287800	758800	974100	539200	315100	341300

CAL YR 1981 TOTAL 1281060 MEAN 3510 MAX 11200 MIN 1580 AC-FT 2541000
WTR YR 1982 TOTAL 2280570 MEAN 6248 MAX 18600 MIN 2280 AC-FT 4524000

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued
(National stream-quality accounting network station)

PERIOD OF RECORD.--October 1979 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1979 to current year.
WATER TEMPERATURES: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Water-quality data collection was moved 5.5 miles upstream to this site from previous site 09163530. Water-quality records for this site are considered to be equivalent to data obtained at old site. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,940 micromhos Aug. 13, 1981; minimum, 382 micromhos May 6, 1982.
WATER TEMPERATURE: Maximum, 27.0°C Aug. 7-9, 1981; minimum, freezing point on many days during December 1980 to February 1981, January and February 1982.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 1,420 micromhos Oct. 4, 5; minimum, 382 micromhos May 6.
WATER TEMPERATURES: Maximum, 25.0°C July 23, 24, Aug. 7, 8, 22; minimum, freezing point on many days during January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (FTU)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT										
20...	0915	--	--	1340	--	--	110	--	250	560
20...	1300	3990	--	--	--	10.5	--	--	--	--
DEC										
07...	0945	5220	1220	1260	7.8	3.0	8.0	11.7	210	250
07...	1245	3220	--	--	--	3.0	--	--	--	--
JAN										
27...	1140	2960	--	--	--	.0	--	--	--	--
MAR										
23...	0945	4140	920	870	8.2	6.0	21	10.4	130	110
23...	1230	4140	--	--	--	6.0	--	--	--	--
APR										
29...	1300	6570	--	--	--	13.0	--	--	--	--
MAY										
25...	1000	13900	515	548	8.2	14.0	72	8.3	310	1000
25...	1400	13900	--	--	--	14.0	--	--	--	--
JUN										
08...	0845	15700	480	496	7.8	13.0	80	8.4	340	840
08...	1230	15700	--	--	--	13.0	--	--	--	--
SEP										
01...	0930	4290	1000	1130	8.2	20.5	100	7.4	--	--
01...	1315	4290	--	--	--	20.5	--	--	--	--

DATE	HARD-NESS (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
OCT										
20...	450	120	37	100	2.2	4.1	170	380	95	.4
20...	--	--	--	--	--	--	--	--	--	--
DEC										
07...	430	110	38	120	2.5	4.1	160	350	120	.3
07...	--	--	--	--	--	--	--	--	--	--
JAN										
27...	--	--	--	--	--	--	--	--	--	--
MAR										
23...	280	72	25	87	2.4	3.3	150	230	74	.3
23...	--	--	--	--	--	--	--	--	--	--
APR										
29...	--	--	--	--	--	--	--	--	--	--
MAY										
25...	190	51	15	32	1.1	2.5	116	120	26	.2
25...	--	--	--	--	--	--	--	--	--	--
JUN										
08...	180	50	13	30	1.0	1.5	105	110	24	.3
08...	--	--	--	--	--	--	--	--	--	--
SEP										
01...	410	110	33	89	2.1	3.7	150	330	69	.4
01...	--	--	--	--	--	--	--	--	--	--

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P)
OCT 20...	12	923	851	--	.89	.120	.56	.050	.010
20...	--	--	--	--	--	--	--	--	--
DEC 07...	8.3	874	847	12300	1.0	.100	.28	.020	.010
07...	--	--	--	--	--	--	--	--	--
JAN 27...	--	--	--	--	--	--	--	--	--
MAR 23...	9.6	612	592	6840	1.1	.090	.61	.030	.030
23...	--	--	--	--	--	--	--	--	--
APR 29...	--	--	--	--	--	--	--	--	--
MAY 25...	11	330	327	12400	.50	.130	1.20	.180	.050
25...	--	--	--	--	--	--	--	--	--
JUN 08...	9.4	325	301	13800	.39	.120	.60	.990	.110
08...	--	--	--	--	--	--	--	--	--
SEP 01...	13	812	738	9410	2.0	.200	.70	.140	.070
01...	--	--	--	--	--	--	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)
OCT 20...	0915	2	2	100	67	1	<1	10	0
MAR 23...	0945	1	1	<100	59	1	2	10	<10
JUN 08...	0845	1	1	100	55	1	3	<10	<10
SEP 01...	0930	2	2	200	67	<1	<1	10	<10

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN)
OCT 20...	1	<3	16	2	3900	18	8	0	110
MAR 23...	<1	<1	19	2	520	17	8	3	40
JUN 08...	2	<1	9	2	2800	40	4	<1	120
SEP 01...	<1	<1	6	7	3000	13	<1	<1	110

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT 20...	4	.0	.0	8	8	0	0	60	8
MAR 23...	10	.1	<.1	4	5	<1	<1	20	26
JUN 08...	4	.2	<.1	3	3	<1	1	50	8
SEP 01...	3	.8	.5	10	9	<1	<1	30	7

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 20...	1300	3990	340	3660	89
DEC 07...	1245	3220	228	1980	56
JAN 27...	1140	2960	109	871	86
MAR 23...	1230	4140	72	805	88
APR 29...	1300	6570	913	16200	84
MAY 25...	1400	13900	884	33200	--
JUN 08...	1230	15700	443	18800	47
SEP 01...	1315	4290	268	3100	87

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	1190	1160	1150	1090	957	734	488	468	457	824	1120
2	1360	1180	1170	1140	1080	954	730	483	465	427	838	1110
3	1390	1140	1180	1100	1070	955	729	447	466	433	860	1130
4	1400	1110	1180	1120	1060	951	722	416	468	449	886	1140
5	1400	1100	1220	1160	1050	956	720	398	471	458	904	1120
6	1400	1140	1230	1160	1070	960	713	388	473	472	923	1050
7	1380	1160	1220	1180	1090	955	711	399	471	495	---	995
8	1330	1110	1240	1260	1090	953	707	416	482	500	---	996
9	1290	1120	1240	1310	1090	955	713	435	522	525	1000	979
10	1300	1120	1250	1350	1100	957	715	450	530	550	1110	945
11	---	1120	1230	1330	1080	953	713	464	485	567	1020	919
12	---	1120	1230	1320	1020	950	723	474	486	578	988	897
13	1270	1110	1230	1310	995	950	728	482	490	587	968	913
14	1270	1120	1230	1270	979	937	691	507	480	597	1020	890
15	1250	1150	1210	1240	967	928	626	524	470	612	1090	889
16	1240	1160	1170	1190	964	924	576	538	504	629	1060	902
17	1240	1170	1140	1120	959	922	563	564	528	641	995	890
18	1230	1190	1150	1080	957	927	558	592	---	658	949	893
19	1220	1150	1150	1060	951	931	580	603	---	675	913	913
20	1220	1080	1130	1050	956	930	605	596	---	696	929	947
21	---	1090	1130	1060	950	927	625	597	---	715	943	970
22	1230	1100	1150	1100	951	926	646	585	---	731	995	1010
23	1240	1110	1110	1160	952	910	663	545	---	750	1060	1020
24	1250	1110	1080	1200	958	871	692	517	495	769	1020	1020
25	1260	1110	1100	1220	964	831	720	486	489	779	1020	1040
26	1270	1120	1130	1220	966	776	711	469	492	790	1010	1060
27	1270	1120	1140	1220	963	775	685	474	490	832	1030	1020
28	1270	1140	1190	1220	960	775	665	478	493	867	1040	986
29	1260	1130	1240	1200	---	768	610	483	486	883	1040	989
30	1260	1150	1210	1200	---	754	491	481	489	---	1070	993
31	1220	---	1180	1120	---	734	---	494	---	834	1110	---
MEAN	1290	1130	1180	1190	1010	902	669	493	487	632	987	992

WTR YR 1982 MEAN 918 MAX 1400 MIN 388

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.0	13.5	7.0	6.0	---	---	2.5	1.0	2.0	1.0	7.5	6.5
2	14.5	14.0	7.5	6.0	---	---	1.5	.5	1.5	.5	7.5	7.0
3	14.5	13.5	8.0	8.0	---	---	.5	.0	1.0	.5	7.5	7.0
4	14.0	13.0	8.0	7.0	---	---	.0	.0	.5	.0	7.0	6.0
5	13.5	12.0	8.0	7.0	---	---	.0	.0	.0	.0	6.5	5.5
6	13.5	11.5	7.5	7.0	---	---	.0	.0	.0	.0	6.0	4.5
7	14.0	12.5	8.0	7.5	4.0	3.0	.0	.0	1.0	.0	6.0	5.0
8	13.5	13.0	8.5	7.0	3.5	3.0	.0	.0	.0	.0	6.5	5.0
9	13.0	12.0	8.0	7.0	3.5	3.0	.0	.0	.0	.0	7.5	5.0
10	13.5	12.0	7.5	7.0	4.0	3.0	.0	.0	.0	.0	7.5	6.5
11	13.0	11.5	7.0	6.0	4.5	3.0	.0	.0	.5	.0	8.0	7.0
12	12.0	11.0	6.5	6.0	4.0	3.0	.0	.0	1.0	.0	9.5	8.0
13	12.0	11.0	6.5	5.5	4.5	3.5	.0	.0	2.0	.0	9.0	8.0
14	12.5	11.5	7.0	6.0	4.5	3.5	.0	.0	3.0	1.5	9.0	8.0
15	12.0	10.5	7.5	6.0	4.0	3.0	.0	.0	3.0	2.5	8.5	8.0
16	10.5	10.0	7.5	6.0	4.0	3.0	.0	.0	3.5	3.0	8.5	7.5
17	11.5	10.0	7.0	6.0	3.5	3.0	.0	.0	4.0	3.0	9.0	7.5
18	11.5	10.5	6.5	5.5	3.0	2.0	.0	.0	4.0	3.0	9.5	8.0
19	12.0	10.5	5.5	4.5	3.0	2.0	.0	.0	5.0	3.5	8.0	7.0
20	11.5	10.5	4.5	4.0	4.0	2.5	.0	.0	5.0	3.5	8.0	6.0
21	11.5	10.0	4.0	3.5	3.0	3.0	.0	.0	5.5	3.5	7.5	5.5
22	11.5	10.0	4.5	3.5	3.5	2.5	.0	.0	5.5	4.0	7.5	5.0
23	10.5	9.5	5.0	4.0	2.5	1.5	.0	.0	5.5	4.0	8.0	5.0
24	10.0	9.0	5.5	4.5	1.5	.0	.0	.0	5.5	4.0	9.0	6.5
25	9.5	8.0	5.0	4.5	.0	.0	.0	.0	6.5	4.5	9.5	7.5
26	9.0	7.5	4.5	3.5	.0	.0	.0	.0	7.0	5.5	9.5	8.5
27	9.5	8.0	---	---	.0	.0	.0	.0	7.5	6.0	10.0	8.5
28	9.0	8.0	---	---	.0	.0	.0	.0	8.0	6.5	10.5	9.0
29	8.5	8.5	---	---	.0	.0	.0	.0	---	---	10.5	7.5
30	8.5	7.5	---	---	1.0	.0	.5	.0	---	---	8.5	7.0
31	7.5	6.5	---	---	1.0	1.0	1.5	.5	---	---	9.5	7.0
MONTH	15.0	6.5	8.5	3.5	4.5	.0	2.5	.0	8.0	.0	10.5	4.5

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	8.0	15.0	12.5	15.0	13.0	18.5	17.5	23.5	22.0	22.5	20.5
2	8.5	6.0	15.0	13.0	15.0	13.5	18.0	16.5	23.5	22.5	22.0	20.5
3	9.5	7.0	15.0	13.5	16.0	14.0	18.0	16.5	23.5	21.5	22.0	20.5
4	10.5	8.5	14.5	13.0	15.5	14.5	18.0	17.0	23.0	22.0	22.0	21.0
5	9.5	8.0	13.0	11.5	15.0	14.0	17.5	16.0	24.0	22.0	21.5	20.0
6	10.0	8.5	12.0	10.0	14.5	13.0	17.5	15.0	24.0	22.0	21.5	19.5
7	9.5	8.0	11.5	9.0	14.5	13.0	18.5	16.0	25.0	23.0	20.5	19.5
8	9.5	7.5	12.0	10.0	15.0	13.0	19.5	17.0	25.0	23.5	20.5	18.5
9	10.5	8.0	12.5	11.5	15.5	13.5	20.0	17.0	24.5	23.0	21.0	19.0
10	10.5	7.5	13.0	11.0	15.5	14.0	20.5	18.0	24.5	23.0	20.5	19.0
11	11.0	9.0	12.5	11.0	16.0	14.5	20.5	18.5	23.5	21.0	19.5	17.5
12	13.5	10.5	12.0	10.5	16.0	15.0	20.5	18.5	22.5	21.0	18.0	16.5
13	14.5	12.0	11.0	10.0	15.5	15.0	21.0	19.0	21.5	20.5	17.0	14.5
14	14.0	12.5	12.0	9.5	15.5	14.0	21.5	19.0	22.5	20.5	14.0	13.0
15	13.0	11.5	13.0	11.0	16.0	14.5	21.0	19.5	23.0	21.5	14.5	12.5
16	12.5	11.0	13.5	11.5	16.5	14.5	21.0	19.0	23.0	21.0	16.5	14.5
17	11.5	9.5	15.5	13.0	17.5	15.5	21.5	19.5	23.5	21.5	17.5	16.0
18	12.0	10.5	16.0	15.0	17.0	16.0	22.0	20.0	23.5	22.0	18.0	16.5
19	11.0	9.5	15.5	14.5	16.5	15.0	23.0	21.0	24.5	22.0	17.5	16.0
20	10.0	8.0	15.5	13.5	16.0	14.0	23.5	21.5	24.5	22.5	17.5	16.0
21	9.5	7.0	16.0	14.0	16.5	15.0	23.5	22.5	24.5	23.0	18.5	16.5
22	11.0	8.5	16.0	14.5	17.5	16.0	24.0	22.0	25.0	23.0	18.5	17.0
23	12.5	10.5	17.0	14.5	17.0	16.5	25.0	23.0	24.5	23.0	19.0	17.5
24	13.5	11.5	16.5	14.5	17.5	16.0	25.0	23.0	24.0	22.5	19.0	17.5
25	14.0	12.5	15.5	13.5	17.5	16.5	24.5	23.0	23.5	20.5	18.5	17.5
26	14.5	13.0	16.0	13.5	17.5	16.0	24.5	22.5	21.5	20.0	18.5	17.5
27	14.0	12.5	16.5	14.5	18.0	16.5	24.5	23.5	22.0	20.5	18.0	15.0
28	14.5	12.5	15.5	14.0	18.5	17.0	24.0	23.0	22.0	20.0	15.0	13.5
29	14.5	13.0	15.0	13.5	18.0	17.5	23.0	21.5	21.5	19.5	13.5	12.5
30	14.0	12.0	14.0	13.0	18.0	17.5	23.5	22.5	22.0	20.0	14.0	12.5
31	---	---	14.0	12.5	---	---	23.5	22.0	22.0	20.5	---	---
MONTH	14.5	6.0	17.0	9.0	18.5	13.0	25.0	15.0	25.0	19.5	22.5	12.5
YEAR	25.0	.0										

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by Colorado Division of Water Resources. The locations of selected diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09022500 Moffat water tunnel diverts water from tributaries of Williams Fork (via August P. Gumlick and Vasquez tunnels, beginning in 1959) between headgates (in secs.20 and 29, T.3 S., R.76 W.) and west portal of August P. Gumlick tunnel (in sec.28, T.3 S., R.76 W.) and from the main stem and tributaries of Fraser River between headgates (in sec.8, T.2 S., R.76 W., and sec.24, T.1 S., R.75 W.) and west portal of Moffat tunnel (in sec.11, T.2 S., R.75 W.), in Colorado River basin, to South Boulder Creek, in sec.2, T.2 S., R.74 W., in Platte River basin. (See sta. 09036000 for diversions by August P. Gumlick tunnel.)

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09061500 Columbine ditch diverts water from tributaries of Eagle River in sec.5, T.8 S., R.79 W., in Colorado River basin to Chalk Creek (tributary to East Fork Arkansas River) in NW¼ sec.9, T.8 S., R.79 W., in Arkansas River basin.

09062000 Ewing ditch diverts water from Piney Creek in sec.11, T.8 S., R.80 W., in Eagle River basin, to Thayer Gulch (tributary to Tennessee Creek) in sec.11, T.8 S., R.80 W., in Arkansas River basin.

09062500 Wurtz ditch diverts water from tributaries of Eagle River between headgate in sec.32, T.7 S., R.80 W., and Tennessee Pass, in Colorado River basin, to West Tennessee Creek (tributary to Tennessee Creek) in sec.17, T.8 S., R.80 W., in Arkansas River basin.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

09073000 Twin Lakes tunnel diverts water from tributaries of Roaring Fork River between headgates (in sec.21, T.11 S., R.83 W., and sec.2, T.11 S., R.83 W.), and west portal of Twin Lakes tunnel (in sec.24, T.11 S., R.83 W), in Colorado River basin, to North Fork Lake Creek in sec.22, T.11 S., R.82 W., in Arkansas River basin.

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

Diversion		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
TO PLATTE RIVER BASIN														
09010000	Grand River ditch...	0	0	0	0	0	0	0	716	6,970	9,520	3,600	1,050	21,860
09013000	Alva B. Adams tunnel	24,440	21,980	29,860	29,920	26,580	29,890	19,190	28,730	3,580	8,830	14,160	11,370	248,500
09021500	Berthoud Pass ditch.	0	0	0	0	0	0	0	0	0	227	168	31	426
09022500	Moffat water tunnel.	1,430	1,180	891	664	500	547	699	5,790	37,660	22,520	9,880	6,080	87,840
09050590	Harold D. Roberts tunnel............	12,650	8,450	6,460	6,430	5,880	3,440	0	0	2,070	18,770	3,860	0	68,010
TO ARKANSAS RIVER BASIN														
09042000	Hoosier Pass tunnel.	0	0	0	0	0	0	0	586	4,160	3,400	1,240	1,200	10,590
09061500	Columbine ditch.....	0	0	0	0	0	0	0	62	1,080	531	141	93	1,910
09062000	Ewing ditch.........	30	0	0	0	0	0	0	116	581	263	92	68	1,120
09062500	Wurtz ditch.........	0	0	0	0	0	0	0	313	2,140	893	315	117	3,780
09063700	Homestake tunnel....	0	40	3,890	4,700	4,210	4,630	2,250	0	0	0	0	0	19,720
09073000	Twin Lakes tunnel...	760	370	182	141	113	159	183	5,170	26,340	15,710	3,550	1,340	54,010
09077160	Charles H. Boustead Tunnel............	0	0	0	0	0	0	0	7,080	41,220	23,830	3,360	0	75,490
09077500	Busk-Ivanhoe tunnel.	163	0	0	0	0	0	0	313	3,830	1,830	413	292	6,840
09115000	Larkspur ditch......	0	0	0	0	0	0	0	0	58	15	32	15	120
TO RIO GRANDE BASIN														
09118200	Tarbell ditch.......	0	0	0	0	0	0	0	0	132	251	294	58	735
09121000	Tabor ditch.........	0	0	0	0	0	0	105	142	560	268	241	288	1,600
09341000	Treasure Pass diversion ditch.........	0	0	0	0	0	0	0	4.7	242	143	0.08	0	390
09347000	Don La Font ditches No. 1 and 2.......	0	0	0	0	0	0	0	0	112	98	0	0	210
09351000	Pine River-Weminuche Pass ditch........	0	0	0	0	0	0	0	0	444	185	0	0	629
09351500	Weminuche Pass ditch	0	0	0	0	0	0	0	0	814	774	0	0	1,590

NOTE.--Due to rounding procedures, water year totals may not agree.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations; the second is a table of annual maximum stage and discharge at crest-stage stations; and the third is a table containing discharge measurements made at miscellaneous sites for both low flow and high flow are given in a fourth table.

LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simulataneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1982

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi (2.4 km) upstream from mouth, 7.5 mi (12.1 km) north of Minturn.	0.76	1965-82	10-21-81	0.04
					7-01-82	4.32
					8-11-82	0.22
					9-01-82	0.07

*Also a crest-stage partial-record station.

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

09077160 Charles H. Boustead Tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19", and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec.20, T.9 S., R.81 W., in Arkansas River basin.

09115000 Larkspur ditch diverts water from tributaries of Tomichi Creek between headgates (in sec.11, T.48 N., R.6 E., and sec.1, T.47 N., R.6 E.), and Marshall Pass, in Gunnison River basin, to Poncha Creek (tributary to South Arkansas River) in SE¼ sec.24, T.48 N., R.6 E., in Arkansas River basin.

09118200 Tarbell ditch diverts water from Lake Fork Cochetopa Creek (tributary to Cochetopa Creek), in NW¼ sec.18, T.43 N., R.2 E., in Gunnison River basin, to Lake Fork Saguache Creek (tributary to Middle Fork Saguache Creek) in NE¼ sec.18, T.43 N., R.2 E., in Rio Grande Basin. All records available prior to October 1960 published in WSP 1733.

REVISIONS (WATER YEARS).--WSP 1733: 1949-51.

09121000 Tabor ditch diverts water from tributaries of Cebolla Creek in secs.29 and 36, T.43 N., R.3 W., in Gunnison River basin, to Big Spring Creek (tributary to North Clear Creek) in sec.35, T.43 N., R.3 W., in Rio Grande basin.

09341000 Treasure Pass diversion ditch diverts water from tributaries of Wolf Creek between headgates (in sec.31, T.38 N., R.2 E., and sec.6, T.37 N., R.3 E.), and Wolf Creek Pass, in San Juan River basin, to tributary of South Fork Rio Grande in sec.31, T.38 N., R.2 E., in Rio Grande basin.

09347000 Don La Font ditches 1 and 2 divert water from tributaries of Piedra River between headgates in NW¼ sec.4, T.38 N., R.1 W., and SW¼ sec.33, T.39 N., R.1 W.), and Piedra Pass, in San Juan River basin, to South River in sec.4, T.38 N., R.1 W., in Rio Grande basin.

09351000 Pine River-Weminuche Pass ditch diverts water from North Fork Los Pinos River (tributary to Los Pinos River) in sec.4, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

09351500 Weminuche Pass ditch diverts water from left bank of Rincon la Vaca Creek (tributary to Los Pinos River) in sec.5, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1982

Station number	Station name	Location	Total drainage area (mi^2)	Non-contributing	Period of record	Annual maximum		
						Date	Gage height (feet)	Discharge (ft^3/s)
		PINEY RIVER BASIN						
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi (2.4 km) upstream from mouth, 7.5 mi (12.1 km) north of Minturn.	0.76	-	1965-82	7-01-82	1.50	4.32 (observed)
		COLORADO RIVER BASIN						
09061450	Sweetwater Creek at mouth near Dotsero, CO	Lat 39°43'20", long 107°02'22", in NW¼NE¼ sec.9, T.4 S., R.86 W., Eagle County, 5.3 mi (8.5 km) north of Dotsero.	105	-	1979-82	8-12-82	8.89	260
09091100	Mamm Creek near Silt, CO	Lat 39°31'54", long 107°42'48", in NW¼NW¼ sec.18, T.6 S., R.92 W., Garfield County, 3.3 mi (5.3 km) southeast of Silt.	63.3	-	1979-82	7-27-82	5.50	1,040
		GUNNISON RIVER BASIN						
09149450	Dry Creek near Olathe, CO	Lat 38°33'19", long 108°02'43", in SW¼NE¼ sec.36, T.50 N., R.11 W., Montrose County, 4.9 mi (7.9 km) southwest of Olathe.	102	-	1979-82	7-27-82	5.50	1,040

* Also a low-flow partial-record station.

SUMMARY OF FLOOD DISCHARGE

The following table contains the record of peak flow at a selected site for the flood that occurred during 1982. An indirect measurement was made to determine the flood peak.

Stream	Tributary to	Location	Drainage area	Date	Discharge (ft^3/s)
Coal Creek west of Montrose	Dry Creek	Lat 38°29'04", long 107°59'47", in SW¼NE¼ sec.28, T.49 N., R.10 W., Montrose County.	30.4	7-27-82	5,030

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
09010500 - COLORADO R BELOW BAKER GULCH, NR GRAND LAKE, CO. (LAT 40 19 33 LONG 105 51 22)							
OCT , 1981				APR , 1982			
02...	1440	80	8.0	19...	1430	82	.5
NOV				MAY			
20...	1130	80	.0	11...	1610	68	5.5
DEC				JUN			
31...	1115	90	.0	15...	1120	45	5.0
JAN , 1982				JUL			
27...	1115	85	.0	23...	1100	58	11.5
FEB				AUG			
26...	1020	40	.0	17...	1230	40	15.5
MAR							
24...	1440	80	.5				
09011000 - COLORADO RIVER NEAR GRAND LAKE, CO. (LAT 40 13 08 LONG 105 51 25)							
OCT , 1981				APR , 1982			
02...	1100	90	6.5	19...	1630	90	1.5
NOV				MAY			
19...	1640	85	.0	11...	1030	--	6.5
DEC				JUN			
30...	1515	90	.5	15...	1320	40	11.0
JAN , 1982				JUL			
27...	1330	95	.0	22...	0925	75	11.5
FEB				AUG			
26...	1200	93	.5	17...	1410	72	18.0
MAR							
24...	1030	85	1.0				
09019000 - COLORADO RIVER BELOW LAKE GRANBY, CO. (LAT 40 08 39 LONG 105 52 00)							
OCT , 1981				MAY , 1982			
01...	1430	65	8.5	10...	1400	67	5.0
NOV				JUN			
19...	1320	65	7.0	15...	1615	76	9.0
JAN , 1982				JUL			
26...	1530	65	3.0	22...	1155	65	10.0
FEB				AUG			
25...	1430	68	3.5	17...	1545	68	10.5
APR							
21...	1130	68	3.5				
09019500 - COLORADO RIVER NEAR GRANBY, CO. (LAT 40 07 15 LONG 105 54 00)							
OCT , 1981				JUL , 1982			
01...	1325	80	9.0	22...	1410	85	16.0
APR , 1982				AUG			
21...	1230	77	4.0	19...	1000	80	10.5
JUN							
17...	1230	80	12.0				
09021000 - WILLOW CREEK BELOW WILLOW CREEK RESERVOIR, CO. (LAT 40 08 45 LONG 105 56 22)							
OCT , 1981				MAR , 1982			
01...	1700	125	13.0	23...	1420	135	4.5
NOV				APR			
19...	1435	115	5.5	19...	1745	135	3.0
DEC				JUN			
31...	1320	130	2.5	15...	1310	81	9.0
JAN , 1982				JUL			
26...	1350	130	4.5	22...	1555	85	9.5
FEB				AUG			
25...	1525	130	4.5	19...	1040	100	21.5
09024000 - FRASER RIVER NEAR WINTER PARK, CO. (LAT 39 54 00 LONG 105 46 34)							
OCT , 1981				MAY , 1982			
06...	1130	75	4.5	12...	1045	87	3.0
NOV				JUN			
16...	1140	100	4.0	08...	1100	64	5.5
JAN , 1982				JUL			
25...	1225	120	.0	22...	1105	69	10.5
FEB				SEP			
22...	1245	100	.0	07...	1245	--	11.0

09025000 - VASQUEZ CREEK NEAR WINTER PARK, CO. (LAT 39 55 13 LONG 105 47 05)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	1300	47	3.5	12...	1300	47	3.5
NOV				JUN			
16...	1340	50	1.0	08...	1245	--	6.5
JAN , 1982				JUL			
25...	1425	54	.0	22...	1350	36	12.0
FEB							
22...	1440	54	.0				

09025400 - ELK CREEK NEAR FRASER, CO. (LAT 39 55 09 LONG 105 49 31)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				JUN , 1982			
28...	1020	46	5.0	09...	1125	46	6.0
NOV				JUL			
18...	1350	58	.0	08...	1250	35	8.0
JAN , 1982				23...	1050	42	11.5
20...	1115	70	.0				
MAY							
14...	1330	48	1.0				

09026500 - ST. LOUIS CREEK NEAR FRASER, CO. (LAT 39 54 36 LONG 105 52 40)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
08...	1400	120	3.5	12...	1600	85	3.5
NOV				JUN			
16...	0815	81	1.0	09...	0940	85	3.0
JAN , 1982				JUL			
05...	1145	93	.0	23...	1000	80	7.0
MAR							
03...	1005	98	.0				

09032000 - RANCH CREEK NEAR FRASER, CO. (LAT 39 57 00 LONG 105 45 54)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	1420	57	5.0	12...	1430	51	3.0
NOV				JUN			
16...	1500	38	1.0	08...	1445	41	8.0
JAN , 1982				JUL			
05...	1435	48	.0	08...	1040	34	6.0
FEB				22...	1640	37	10.0
22...	1630	48	.0				

09034250 - COLORADO RIVER AT WINDY GAP, NEAR GRANBY, CO. (LAT 40 06 30 LONG 106 00 13)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
NOV , 1981				APR , 1982			
13...	1430	126	4.5	21...	1430	144	8.0
20...	1400	110	.5	MAY			
DEC				12...	1210	110	10.0
30...	1300	125	.0	JUN			
JAN , 1982				17...	1400	115	14.0
27...	1535	130	.0	JUL			
FEB				06...	1230	90	10.5
25...	1220	130	.0	AUG			
MAR				18...	1630	120	22.0
23...	1550	135	4.5				
31...	1230	160	1.5				

09034900 - BOBTAIL CREEK NEAR JONES PASS, CO. (LAT 39 45 37 LONG 105 54 21)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
02...	1345	56	6.0	20...	1320	35	.0
NOV				AUG			
12...	1150	--	.0	09...	1020	45	7.0
JAN , 1982				SEP			
08...	1135	--	.0	08...	1025	50	6.0
FEB							
18...	1100	--	1.0				

09035500 - WILLIAMS FORK BELOW STEELMAN CREEK, CO. (LAT 39 46 44 LONG 105 55 40)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAR , 1982			
02...	1150	75	5.5	29...	1300	--	.0
NOV				AUG			
12...	1130	--	.0	09...	1230	70	8.5
JAN , 1982				SEP			
08...	1245	73	.0	08...	1255	65	20.0
FEB							
18...	1250	--	.0				

09035700 - WILLIAMS FORK ABOVE DARLING CREEK, NR LEAL, CO. (LAT 39 47 22 LONG 106 01 18)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1350	62	4.5
NOV			
17...	1215	70	1.0
JAN , 1982			
21...	1125	110	.0
MAR			
02...	1230	72	.0
APR			
14...	1250	70	1.5
MAY , 1982			
13...	1225	57	.0
17...	1500	58	8.0
JUN			
15...	1340	42	6.5
AUG			
04...	1215	50	11.0

09035800 - DARLING CREEK NEAR LEAL, CO. (LAT 39 48 17 LONG 106 01 11)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1400	73	2.5
NOV			
17...	1315	77	1.0
JAN , 1982			
21...	1455	70	.0
APR			
14...	1025	80	5.0
MAY , 1982			
13...	1415	--	.0
JUN			
15...	1530	48	4.5
AUG			
04...	1430	57	9.0

09035900 - SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO. (LAT 39 47 44 LONG 106 01 49)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
NOV , 1981			
17...	1000	92	.0
JAN , 1982			
21...	1240	80	.0
MAR			
02...	1505	92	.0
APR			
14...	1700	80	1.0
MAY , 1982			
13...	1045	75	.0
JUN			
15...	1215	38	7.0
JUL			
06...	1145	47	5.0
AUG			
03...	1020	58	12.0

09036000 - WILLIAMS FORK NEAR LEAL, CO. (LAT 39 49 53 LONG 106 03 15)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1530	75	7.0
NOV			
17...	1600	85	3.0
JAN , 1982			
26...	1445	85	1.0
FEB			
23...	1100	--	1.0
APR			
14...	1815	82	2.5
MAY , 1982			
13...	1545	68	1.0
JUN			
16...	1040	46	7.0
JUL			
07...	1115	--	6.0
AUG			
04...	1035	60	9.0

09037500 - WILLIAMS FORK NEAR PARSHALL, CO. (LAT 40 00 01 LONG 106 10 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
08...	1030	90	4.5
NOV			
18...	0930	70	1.0
JAN , 1982			
05...	1715	90	.0
FEB			
24...	1500	90	.0
MAY , 1982			
14...	1000	82	2.5
JUN			
16...	1500	54	7.0
AUG			
03...	1430	63	15.8

09038500 - WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO. (LAT 40 02 07 LONG 106 12 17)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
28...	1415	120	9.5
NOV			
18...	1145	135	6.0
JAN , 1982			
26...	1230	130	2.0
FEB , 1982			
23...	1500	--	2.0
MAY			
14...	1045	130	4.5
AUG			
18...	1455	106	10.0

09039000 - TROUBLESOME CREEK NEAR PEARMONT, CO. (LAT 40 13 03 LONG 106 18 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
07...	1300	110	8.0	19...	1030	85	5.5
NOV				JUN			
17...	1235	100	2.5	09...	1245	70	9.0
JAN , 1982				JUL			
14...	1050	85	.0	14...	1235	78	13.0
FEB				SEP			
24...	1120	100	.0	01...	1000	95	10.0
APR							
21...	1055	85	.5				

09040000 - EAST FORK TROUBLESOME C NEAR TROUBLESOME, CO. (LAT 40 09 27 LONG 106 16 58)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
07...	1005	220	6.0	19...	1300	125	7.0
NOV				JUN			
17...	1445	210	3.0	09...	0940	100	5.0
JAN , 1982				JUL			
14...	1240	220	.0	14...	1435	180	17.5
FEB				SEP			
24...	1340	230	.0	01...	1135	220	12.0
APR							
21...	1315	185	2.0				

09041500 - MUDDY CREEK AT KREMMLING, CO. (LAT 40 03 37 LONG 106 23 51)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
APR , 1982				JUL , 1982			
20...	1500	650	3.0	14...	1730	900	17.0
MAY				SEP			
19...	1225	325	8.0	01...	1345	900	16.5
JUN							
09...	1545	250	10.0				

09046600 - BLUE RIVER NEAR DILLON, CO. (LAT 39 32 55 LONG 106 02 19)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	1335	185	5.0	03...	1455	350	2.0
NOV				JUN			
19...	1040	120	1.0	09...	1100	320	3.0
JAN , 1982				22...	1100	260	3.0
14...	1230	175	2.0	JUL			
FEB				01...	0915	100	9.0
24...	1355	240	1.5	SEP			
APR				02...	1220	185	8.0
08...	1100	260	3.0				

09047500 - SNAKE RIVER NEAR MONTEZUMA, CO. (LAT 39 36 20 LONG 105 56 33)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				APR , 1982			
06...	1050	110	4.0	13...	1305	110	2.0
NOV				JUN			
16...	1110	115	1.5	15...	0950	62	3.0
JAN , 1982				JUL			
20...	1130	110	.0	07...	1115	62	6.0
FEB				AUG			
23...	1120	115	.0	30...	1050	85	8.0

09047700 - KEYSTONE GULCH NEAR DILLON, CO. (LAT 39 35 40 LONG 105 58 19)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				JUN , 1982			
06...	1210	85	4.0	15...	1150	55	4.0
NOV				22...	0915	40	3.0
16...	1230	80	1.0	JUL			
JAN , 1982				07...	1245	59	7.0
20...	1300	49	.0	AUG			
FEB				30...	1200	76	9.0
23...	1300	90	.0				
APR							
13...	1710	77	.0				

09050100 - TENMILE CREEK BL NORTH TENMILE C, AT FRISCO, CO. (LAT 39 34 37 LONG 106 06 33)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	1300	200	6.0	03...	1330	200	3.0
NOV				JUN			
19...	1240	<50	.0	22...	1625	280	3.0
DEC				30...	1740	75	7.0
10...	1600	<50	.0	JUL			
JAN , 1982				01...	1050	75	7.0
14...	1520	70	.0	26...	1140	180	5.0
FEB				SEP			
23...	1020	140	.0	02...	0905	180	5.0
APR							
06...	1020	650	3.0				

09050700 - BLUE RIVER BELOW DILLON, CO. (LAT 39 37 32 LONG 106 03 57)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	1440	180	8.0	21...	1230	220	5.0
NOV				JUN			
16...	1420	170	7.5	16...	1345	210	6.0
JAN , 1982				JUL			
20...	1645	170	3.0	09...	1405	190	7.0
FEB				AUG			
23...	1600	185	3.0	31...	0910	150	15.5
APR							
20...	1700	220	2.0				

09052000 - ROCK CREEK NEAR DILLON, CO. (LAT 39 43 23 LONG 106 07 41)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	1620	85	7.0	21...	1000	50	3.0
NOV				JUN			
16...	1545	62	2.0	15...	1430	29	6.0
JAN , 1982				JUL			
13...	1545	70	.0	08...	1640	26	8.5
MAR				AUG			
02...	1725	105	.0	30...	1430	39	10.0
APR							
15...	1455	67	3.0				

09052400 - BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 43 41 LONG 106 10 22)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				APR , 1982			
20...	1100	55	1.0	29...	1040	55	.5
NOV				JUN			
19...	1430	60	.0	08...	1240	34	4.0
JAN , 1982				JUL			
13...	1700	75	.0	07...	1630	28	4.0
FEB				SEP			
25...	0845	70	.0	02...	0930	41	6.5

09052800 - SLATE CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 45 47 LONG 106 11 31)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				APR , 1982			
08...	1435	42	6.0	15...	1030	65	.0
NOV				JUN			
19...	1050	48	.0	11...	0950	29	4.0
JAN , 1982				JUL			
27...	1315	50	.0	08...	1030	23	7.0
MAR				SEP			
04...	1100	67	.0	02...	1255	32	11.0

09054000 - BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO. (LAT 39 47 59 LONG 106 16 04)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				APR , 1982			
20...	1450	28	9.0	28...	1200	46	2.5
NOV				JUN			
18...	1525	39	4.0	08...	1640	34	9.0
JAN , 1982				JUL			
27...	1020	40	1.0	09...	1240	21	6.0
MAR				AUG			
04...	1525	36	1.0	31...	1150	21	13.0

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
09055300 - CATARACT CREEK NEAR KREMMLING, CO. (LAT 39 50 07 LONG 106 18 57)			
OCT , 1981			
08...	1020	38	11.0
NOV			
18...	1220	39	3.0
JAN , 1982			
13...	1130	48	2.0
MAR			
03...	1500	56	1.0
APR			
28...	0910	65	2.0
MAY , 1982			
20...	1600	63	7.0
JUN			
16...	0945	35	7.0
JUL			
09...	1015	27	6.0
AUG			
31...	1350	31	7.0
09057500 - BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO. (LAT 39 52 49 LONG 106 20 00)			
OCT , 1981			
19...	1640	170	11.0
NOV			
18...	1000	165	7.5
JAN , 1982			
26...	1730	170	3.0
FEB			
25...	1045	170	3.0
APR			
21...	1615	190	3.0
MAY , 1982			
18...	1030	185	5.5
JUN			
16...	1150	180	6.5
JUL			
08...	1430	160	8.0
AUG			
31...	1630	135	11.0
09058000 - COLORADO RIVER NEAR KREMMLING, CO. (LAT 40 02 12 LONG 106 26 22)			
OCT , 1981			
19...	1400	230	9.5
NOV			
17...	1020	220	4.0
JAN , 1982			
14...	1430	300	.5
FEB			
24...	1500	220	4.0
MAR			
31...	1020	250	1.5
MAY , 1982			
18...	1330	300	10.0
JUN			
10...	1050	230	12.0
JUL			
15...	0950	350	12.5
SEP			
01...	1710	180	16.0
09058500 - PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO. (LAT 39 42 29 LONG 106 25 38)			
OCT , 1981			
21...	1200	46	6.0
DEC			
16...	1515	--	.0
FEB , 1982			
11...	1500	15	.0
APR			
08...	1400	60	.0
22...	1430	55	.0
MAY			
25...	0930	60	3.0
JUN , 1982			
15...	1145	33	6.0
JUL			
01...	1250	24	7.5
14...	1500	34	11.0
AUG			
10...	1250	11	14.0
SEP			
01...	1110	48	11.5
09058610 - DICKSON CREEK NEAR VAIL, CO. (LAT 39 42 14 LONG 106 27 25)			
OCT , 1981			
21...	1600	360	7.5
APR , 1982			
21...	1550	350	.0
MAY			
25...	1230	280	4.0
JUN			
15...	1420	220	9.0
JUN , 1982			
29...	1500	300	14.5
AUG			
11...	1230	350	13.0
SEP			
01...	1330	370	13.0
09058700 - FREEMAN CREEK NEAR MINTURN, CO. (LAT 39 41 55 LONG 106 26 41)			
OCT , 1981			
27...	1540	220	6.0
MAY , 1982			
25...	1335	105	1.0
JUN			
15...	1515	100	10.0
29...	1615	210	18.0
AUG , 1982			
11...	1330	240	16.0
SEP			
01...	1415	200	16.0

09058800 - EAST MEADOW CREEK NEAR MINTURN CO. (LAT 39 43 54 LONG 106 25 36)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				JUL , 1982			
21...	1020	65	.5	14...	1340	54	9.0
APR , 1982				AUG			
22...	1110	110	.0	10...	1000	58	6.5
JUN				SEP			
15...	1000	40	2.5	01...	0845	65	6.5

09059500 - PINEY RIVER NEAR STATE BRIDGE, CO. (LAT 39 48 00 LONG 106 35 00)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				MAY , 1982			
28...	1400	420	4.0	24...	1505	190	7.0
DEC				JUN			
14...	1240	--	.5	14...	1515	170	9.5
FEB , 1982				AUG			
08...	1200	380	.0	09...	1145	640	15.0
APR				SEP			
05...	1115	180	2.0	02...	1215	310	13.0
22...	1100	290	7.0				

09060950 - BIG ALKALI CREEK BELOW CASTLE CR NEAR BURNS, CO. (LAT 39 51 52 LONG 106 49 01)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				MAY , 1982			
06...	0940	1390	5.0	26...	1505	860	6.0
DEC				JUN			
17...	1020	--	.0	08...	0840	540	6.0
FEB , 1982				AUG			
17...	1030	1100	.0	11...	1635	1200	15.0
APR				SEP			
09...	1020	950	.5	08...	1110	1100	10.5
21...	1550	620	7.0				
MAY							
07...	1000	480	3.0				
24...	1250	520	10.0				

09063000 - EAGLE RIVER AT RED CLIFF, CO. (LAT 39 30 34 LONG 106 22 00)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				JUN , 1982			
20...	1900	220	4.0	17...	1330	130	8.0
DEC				28...	1335	170	11.5
15...	1350	--	.0	JUL			
FEB , 1982				01...	1655	200	12.0
10...	1630	26	.0	15...	1310	170	11.5
APR				29...	1330	185	12.5
07...	1310	220	1.5	AUG			
MAY				31...	1550	215	13.0
05...	1500	160	4.0				
06...	1100	140	1.5				
27...	1400	260	9.0				

09063200 - WEARYMAN CREEK NEAR RED CLIFF, CO. (LAT 39 31 14 LONG 106 19 06)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				JUN , 1982			
20...	1500	380	1.5	17...	1000	200	3.0
FEB , 1982				28...	1555	240	6.0
10...	1015	64	.0	JUL			
APR				15...	1025	190	5.5
07...	0950	26	.5	29...	1100	200	6.5
20...	1500	300	.0	AUG			
MAY				31...	1350	260	8.0
27...	1010	260	3.0				

09063400 - TURKEY CREEK NEAR RED CLIFF, CO. (LAT 39 31 22 LONG 106 20 15)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)	DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	TEMPER-ATURE (DEG C)
OCT , 1981				MAY , 1982			
20...	1600	260	3.0	27...	1115	220	4.5
DEC				JUN			
15...	1545	--	.0	17...	1145	170	4.0
FEB , 1982				JUL			
10...	1150	14	.0	15...	1150	185	7.0
APR				29...	1425	210	8.5
07...	1040	95	.0	AUG			
20...	1750	200	.0	31...	1455	250	10.0

09063900 - MISSOURI CREEK NEAR GOLD PARK, CO. (LAT 39 23 25 LONG 106 28 10)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
20...	1040	12	1.0
FEB , 1982			
09...	1215	30	.0
APR			
06...	1335	28	.0
MAY			
26...	1200	36	5.5
JUN , 1982			
16...	1000	25	2.0
JUL			
30...	0915	27	8.0
AUG			
31...	0930	26	8.0

09064000 - HOMESTAKE CREEK AT GOLD PARK, CO. (LAT 39 24 20 LONG 106 25 58)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
20...	1200	44	4.0
FEB , 1982			
09...	1440	34	.0
APR			
06...	1220	40	.0
MAY			
26...	1530	36	8.5
JUN , 1982			
16...	1100	30	4.0
JUL			
30...	1035	31	9.0
AUG			
31...	1030	29	10.0

09064500 - HOMESTAKE CREEK NEAR RED CLIFF, CO. (LAT 39 28 24 LONG 106 22 02)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
20...	1335	38	6.0
DEC			
15...	1145	--	.0
APR , 1982			
06...	0940	42	.5
MAY			
26...	1000	34	5.5
JUN , 1982			
16...	1205	32	8.0
JUL			
30...	1235	34	14.5
AUG			
31...	1130	33	12.0

09065100 - CROSS CREEK NEAR MINTURN, CO. (LAT 39 34 05 LONG 106 24 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
28...	0935	50	1.5
DEC			
14...	1520	--	.5
FEB , 1982			
08...	1550	44	.0
APR			
05...	1450	46	.5
MAY			
27...	1510	32	7.0
JUN , 1982			
17...	1500	24	6.0
JUL			
15...	1455	20	10.0
AUG			
12...	0915	26	11.0
SEP			
02...	0915	34	9.0

09065500 - GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40 LONG 106 16 24)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1010	<50	3.0
NOV			
18...	0930	<50	.0
DEC			
10...	1305	<50	.0
JAN , 1982			
12...	1110	<50	.0
FEB			
23...	1535	<50	.0
APR			
06...	1250	<50	2.0
28...	1045	<50	3.0
MAY , 1982			
27...	1405	180	2.0
JUN			
06...	1220	165	5.0
22...	1410	<50	3.0
30...	1020	<50	5.0
JUL			
26...	1410	<50	5.0
SEP			
01...	1310	85	7.0

09066000 - BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47 LONG 106 15 52)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	0815	120	3.0
NOV			
18...	1100	<50	.0
JAN , 1982			
12...	1500	<50	.0
FEB			
23...	1310	<50	.0
APR			
06...	1555	75	1.0
MAY , 1982			
03...	1130	230	2.0
JUN			
08...	1350	140	5.0
30...	1115	75	8.0
JUL			
26...	1215	110	5.0
SEP			
01...	1140	65	8.0

09066100 - BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24 LONG 106 17 34)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1145	< 50	.0
NOV			
18...	1350	< 50	.0
JAN , 1982			
12...	1650	< 50	.0
FEB			
24...	1530	< 50	.0
APR			
07...	0920	80	1.5
APR , 1982			
28...	1215	< 50	2.0
JUN			
08...	1120	185	3.0
30...	1540	< 50	6.0
JUL			
26...	1250	5	5.0
SEP			
01...	1045	5	7.0

09066150 - PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37 LONG 106 18 07)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1240	< 50	2.0
NOV			
18...	1250	< 50	.0
JAN , 1982			
14...	1650	< 50	.0
FEB			
23...	1700	< 50	.0
APR			
07...	1100	< 50	.0
APR , 1982			
28...	1320	< 50	2.5
JUN			
08...	1525	190	3.0
30...	1505	< 50	7.0
JUL			
26...	1400	85	5.0
SEP			
01...	1245	< 50	8.0

09066200 - BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02 LONG 106 19 16)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1415	< 50	2.0
NOV			
18...	1530	< 50	.0
JAN , 1982			
14...	1720	< 50	.0
FEB			
24...	1610	< 50	.0
APR			
07...	1340	75	1.0
APR , 1982			
28...	1505	< 50	2.0
JUN			
09...	1605	230	3.0
30...	1420	< 50	7.0
JUL			
26...	1510	70	5.0
SEP			
01...	1450	< 50	8.0

09066300 - MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50 LONG 106 22 48)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
07...	1235	< 50	3.0
NOV			
18...	1150	< 50	.0
FEB , 1982			
24...	1700	< 50	.0
APR			
07...	1535	< 50	.0
28...	1620	< 50	2.0
JUN , 1982			
09...	1415	200	3.0
30...	1310	100	7.0
JUL			
26...	1530	85	4.0
SEP			
01...	1550	< 50	8.0

09066400 - RED SANDSTONE CREEK NEAR MINTURN, CO. (LAT 39 40 58 LONG 106 24 03)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
27...	1410	75	2.0
DEC			
16...	1200	--	.5
FEB , 1982			
11...	1230	54	.0
APR			
08...	1030	90	.0
22...	1800	--	.0
MAY			
25...	1745	70	4.0
JUN , 1982			
16...	1450	52	7.0
JUL			
01...	1505	70	8.0
14...	1645	52	11.5
AUG			
10...	1610	75	9.5
SEP			
01...	1555	95	10.0

09070000 - EAGLE RIVER BELOW GYPSUM, CO. (LAT 39 38 58 LONG 106 57 11)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
06...	1715	850	13.5
DEC			
02...	1315	990	.0
FEB , 1982			
17...	1000	--	.0
APR			
13...	1410	700	12.0
JUN , 1982			
08...	1455	220	7.0
22...	1610	205	--
AUG			
11...	1400	444	13.0
SEP			
02...	1420	660	12.0

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
09071300 - GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO. (LAT 39 43 04 LONG 107 18 51)							
DEC , 1981				AUG , 1982			
10...	1500	310	1.0	30...	1210	240	13.0
JUN , 1982							
21...	1050	175	4.5				
30...	1235	197	9.5				
09072550 - ROARING FORK RIVER AB LOST MAN C, NEAR ASPEN CO. (LAT 39 07 13 LONG 106 37 27)							
OCT , 1981				JUL , 1982			
14...	1115	60	2.5	26...	1520	95	9.0
NOV				AUG			
10...	1630	48	.0	24...	1215	30	10.0
JUN , 1982				SEP			
16...	0825	28	4.0	22...	1350	40	7.0
30...	1425	30	6.0				
09073005 - LINCOLN CREEK BL GRIZZLY RESERVOIR, NR ASPEN CO. (LAT 39 04 48 LONG 106 36 57)							
OCT , 1981				JUN , 1982			
14...	0950	90	5.5	15...	1655	90	4.5
NOV				JUL			
10...	1330	60	6.0	26...	1250	60	7.5
FEB , 1982				AUG			
26...	1235	90	2.0	24...	0955	70	9.5
MAY				SEP			
19...	1215	120	3.0	22...	1145	55	6.0
09073300 - ROARING FORK RIVER AB DIFFICULT C NR ASPEN, CO. (LAT 39 08 28 LONG 106 46 25)							
OCT , 1981				JUN , 1982			
14...	1300	80	5.0	14...	1635	35	9.0
NOV				JUL			
25...	1330	90	2.0	27...	0925	200	9.0
JAN , 1982				AUG			
28...	1105	90	.0	24...	1415	60	14.0
MAR				SEP			
30...	0935	95	1.0	22...	1615	55	9.0
MAY							
18...	1450	60	7.0				
09073400 - ROARING FORK RIVER NEAR ASPEN, CO. (LAT 39 10 48 LONG 106 48 05)							
OCT , 1981				JUN , 1982			
14...	1445	80	9.0	15...	1350	50	8.0
NOV				30...	1145	50	7.5
25...	1450	95	2.0	JUL			
JAN , 1982				27...	1155	135	11.0
28...	1250	95	.0	AUG			
MAR				24...	1555	70	16.0
30...	1240	90	2.0				
MAY							
18...	1655	70	8.0				
09074000 - HUNTER CREEK NEAR ASPEN, CO. (LAT 39 12 21 LONG 106 47 49)							
OCT , 1981				JUN , 1982			
15...	1400	60	6.0	15...	1045	45	6.0
NOV				JUL			
24...	1800	65	.5	27...	1425	55	15.0
JAN , 1982				AUG			
28...	1610	70	.0	24...	1755	60	12.0
MAR				SEP			
30...	1530	48	1.5	23...	0820	55	7.0
MAY							
19...	0900	100	3.0				

09074800 - CASTLE CREEK ABOVE ASPEN, CO. (LAT 39 05 15 LONG 106 48 42)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
15...	0910	360	4.0
NOV			
25...	0905	420	1.5
JAN , 1982			
26...	1305	380	.0
MAR			
31...	1335	450	2.0
MAY			
19...	1835	390	8.0
JUN , 1982			
16...	1540	205	7.5
JUL			
01...	1110	205	7.0
28...	1220	300	9.0
AUG			
25...	1255	300	8.0
SEP			
23...	1035	205	6.5

09075700 - MAROON CREEK ABOVE ASPEN, CO. (LAT 39 07 25 LONG 106 54 17)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
15...	1155	590	6.0
NOV			
25...	1115	650	3.0
JAN , 1982			
26...	1615	690	.0
MAR			
31...	1100	490	1.0
MAY			
19...	1605	520	6.0
JUN , 1982			
16...	1300	210	7.0
JUL			
01...	1415	240	7.0
28...	1500	230	8.0
AUG			
25...	1045	380	8.0
SEP			
23...	1305	440	9.0

09076520 - OWL CREEK NEAR ASPEN, CO. (LAT 39 13 25 LONG 106 52 45)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
15...	1350	600	8.0
NOV			
24...	1550	560	2.5
JAN , 1982			
26...	1000	390	.0
MAR			
31...	1505	525	3.0
MAY			
18...	1000	320	5.0
JUN , 1982			
16...	1005	305	9.5
JUL			
28...	0935	440	13.0
AUG			
25...	1440	505	15.0
SEP			
23...	1505	505	12.0

09078000 - FRYINGPAN RIVER AT NORRIE, CO. (LAT 39 19 51 LONG 106 39 27)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
13...	1730	75	8.0
NOV			
27...	1020	95	.5
JAN , 1982			
27...	1210	90	.0
MAR			
29...	1340	85	.0
MAY			
17...	1645	70	9.0
JUN , 1982			
17...	1100	60	8.5
JUL			
29...	1100	210	12.5
AUG			
23...	1625	40	16.0
SEP			
21...	1450	50	11.0

09081600 - CRYSTAL RIVER AB AVALANCHE C, NEAR REDSTONE, CO. (LAT 39 13 56 LONG 107 13 36)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
09...	0950	500	7.0
DEC			
01...	1100	750	2.0
FEB , 1982			
16...	1700	710	3.0
APR			
01...	1020	600	5.0
30...	1300	330	8.5
JUN , 1982			
10...	1135	180	7.0
21...	1820	190	8.0
JUL			
01...	1735	180	8.6
29...	1650	215	14.0
SEP			
01...	1405	295	16.0
21...	1145	275	8.0

09085200 - CANYON CREEK ABOVE NEW CASTLE, CO. (LAT 39 36 19 LONG 107 24 21)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
05...	1500	320	14.0
NOV			
30...	1645	--	.5
FEB , 1982			
19...	1525	290	1.0
APR			
15...	1010	260	7.0
JUN , 1982			
11...	1105	210	7.5
21...	1315	215	10.0
AUG			
10...	1210	360	15.5
SEP			
16...	1025	360	11.0

09085300 - EAST CANYON CREEK NEAR NEW CASTLE, CO. (LAT 39 36 33 LONG 107 26 03)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				JUN , 1982			
05...	1600	365	10.5	11...	1400	230	6.0
NOV				21...	1505	210	7.0
30...	1320	380	.5	AUG			
FEB , 1982				10...	1600	345	14.5
19...	1200	420	1.0	SEP			
APR				16...	1155	335	10.0
15...	1200	280	5.0				

09085400 - POSSUM CREEK NEAR NEW CASTLE, CO. (LAT 39 35 52 LONG 107 25 24)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				JUN , 1982			
07...	1215	350	7.5	18...	1035	210	7.0
NOV				AUG			
30...	1505	390	.5	10...	1415	305	13.0
FEB , 1982				SEP			
19...	1310	340	.0	16...	1310	360	12.0
APR							
15...	1335	340	7.5				

09089500 - WEST DIVIDE CREEK NEAR RAVEN, CO. (LAT 39 19 52 LONG 107 34 46)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				JUN , 1982			
07...	1030	355	6.0	07...	1700	200	13.0
NOV				JUL			
24...	1230	390	3.0	09...	1300	175	14.0
JAN , 1982				AUG			
25...	1450	275	.0	13...	1210	320	15.0
APR				SEP			
12...	1600	280	6.0	07...	1535	350	14.5
MAY							
21...	1530	200	11.5				

09092500 - BEAVER CREEK NEAR RIFLE, CO. (LAT 39 28 19 LONG 107 49 55)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				MAY , 1982			
05...	1125	260	7.0	14...	1310	260	7.0
DEC				JUN			
17...	1600	--	1.0	07...	1100	125	8.0
JAN , 1982				JUL			
08...	1120	270	.0	21...	1045	220	11.5
FEB				AUG			
16...	1335	270	.0	19...	1150	270	14.0
APR				SEP			
12...	1135	440	6.0	07...	1145	280	11.0

09093000 - PARACHUTE CREEK NEAR PARACHUTE CO. (LAT 39 34 01 LONG 108 06 37)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
JAN , 1982				JUN , 1982			
28...	1300	1080	4.0	07...	1400	600	11.0
MAR				JUL			
10...	1500	1000	8.5	21...	1300	820	16.5
APR				AUG			
27...	1000	590	5.0	17...	1500	750	17.0

09095526 - GOVERNMENT HIGHLINE CA AT 16 ROAD, NR LOMA, CO. (LAT 39 15 25 LONG 108 45 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981				APR , 1982			
02...	1100	980	16.0	16...	0935	1050	12.0
05...	1150	1100	17.0	19...	0930	1000	11.0
07...	1005	1010	13.5	23...	0930	1000	11.0
09...	0925	1000	12.5	MAY			
13...	1040	1100	11.5	12...	1130	495	11.0
16...	1025	1080	12.0	JUN			
19...	0940	1050	10.0	08...	1100	305	14.5
21...	1010	900	11.0	JUL			
23...	1000	1020	10.0	08...	1105	385	17.5
26...	1000	1000	8.0	AUG			
28...	0920	1050	7.0	02...	1135	650	21.5
APR , 1982				16...	1100	770	21.0
12...	1200	--	12.0	30...	1130	800	20.0
13...	0815	1100	11.5				
15...	1200	1100	12.0				

09095530 - GOVERNMENT HIGHLINE CANAL NEAR MACK, CO. (LAT 39 17 09 LONG 108 49 46)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
13...	0850	1210	11.5
APR , 1982			
21...	1515	900	9.5
29...	1100	810	12.0
JUN			
14...	1340	410	15.0
JUL , 1982			
23...	1210	530	22.0
SEP			
09...	1425	900	18.0

09105000 - PLATEAU CREEK NEAR CAMEO, CO. (LAT 39 11 00 LONG 108 16 10)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
02...	1000	560	12.0
DEC			
09...	1000	800	.0
JAN , 1982			
29...	1200	700	.0
MAR			
25...	1000	810	4.0
APR , 1982			
27...	1300	310	9.0
JUN			
14...	1100	280	11.5
JUL			
28...	1000	799	18.5

09106104 - KIEFER EXTENSION GRAND VALLEY CA NR FRUITA, CO. (LAT 39 13 31 LONG 108 46 28)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
19...	1120	1050	11.0
DEC			
16...	1140	370	2.0
APR , 1982			
09...	1405	1010	9.0
MAY			
13...	0900	510	10.5
JUN , 1982			
08...	1250	--	16.5
JUL			
08...	1250	430	19.5
AUG			
02...	1320	650	23.0
30...	1310	820	21.0

09106108 - KIEFER EXTENSION GRAND VALLEY CANAL NR LOMA, CO. (LAT 39 13 40 LONG 108 49 06)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
08...	1135	1000	13.5
DEC			
16...	1400	1200	3.0
APR , 1982			
09...	1250	925	9.0
JUN , 1982			
14...	1235	430	16.0
JUL			
23...	1120	690	22.0
SEP			
09...	1420	920	18.5

09109000 - TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO. (LAT 38 49 06 LONG 106 36 31)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
20...	1505	120	8.5
DEC			
08...	1420	110	3.5
FEB , 1982			
02...	1450	110	3.0
MAR			
30...	1405	100	3.0
MAY , 1982			
25...	1550	105	4.0
JUN			
30...	1510	55	8.0
AUG			
10...	1715	80	9.0
SEP			
14...	1410	90	7.0

09110000 - TAYLOR RIVER AT ALMONT, CO. (LAT 38 39 52 LONG 106 50 41)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
20...	1645	150	8.0
DEC			
08...	1230	130	2.0
FEB , 1982			
02...	1245	100	2.0
MAR			
30...	1515	100	1.0
APR			
06...	1440	110	5.0
MAY , 1982			
25...	1405	160	6.5
JUN			
30...	1335	120	10.0
AUG			
10...	1515	120	11.5
SEP			
14...	1640	110	8.5

09112500 - EAST RIVER AT ALMONT CO. (LAT 38 39 52 LONG 106 50 50)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981			
21...	1120	320	6.0
DEC			
08...	1120	280	.5
FEB , 1982			
02...	1140	330	.0
MAR			
30...	1130	200	2.5
MAY , 1982			
25...	1220	205	6.5
JUN			
30...	1200	180	8.0
AUG			
10...	1410	260	13.5
SEP			
14...	1210	270	8.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
09114500 - GUNNISON RIVER NEAR GUNNISON, CO. (LAT 38 32 31 LONG 106 56 57)							
OCT , 1981				MAY , 1982			
21...	1455	220	7.5	26...	1705	180	11.5
DEC				JUL			
09...	1545	230	1.0	01...	1145	160	11.0
FEB , 1982				AUG			
03...	1555	80	.0	10...	1230	180	14.0
MAR				SEP			
31...	1555	15	6.0	15...	1645	180	12.0
09118450 - COCHETOPA CREEK BELOW ROCK CREEK NR PARLIN, CO. (LAT 38 20 08 LONG 106 46 18)							
OCT , 1981				MAY , 1982			
22...	1615	245	6.0	25...	0930	215	5.5
DEC				JUN			
08...	0950	210	.0	30...	0920	300	10.0
FEB , 1982				AUG			
02...	0950	200	.0	10...	0920	300	11.0
MAR				SEP			
30...	0930	220	.5	16...	0920	145	7.5
09119000 - TOMICHI CREEK AT GUNNISON, CO. (LAT 38 31 18 LONG 106 56 25)							
OCT , 1981				MAY , 1982			
21...	1550	260	9.0	26...	1510	340	16.0
DEC				JUL			
08...	1615	280	1.0	01...	0915	310	13.0
FEB , 1982				AUG			
02...	1725	270	.0	10...	1110	240	16.0
MAR				SEP			
30...	1725	280	.5	16...	1115	230	11.0
APR							
06...	1705	270	5.5				
09123400 - LAKE FORK BELOW MILL GULCH NEAR LAKE CITY, CO. (LAT 37 54 23 LONG 107 23 03)							
OCT , 1981				JUN , 1982			
22...	1140	130	3.5	29...	1455	60	9.0
DEC				JUL			
09...	1105	120	.5	13...	1500	50	10.0
FEB , 1982				14...	0910	<50	6.0
03...	1100	110	.0	AUG			
MAR				11...	0935	80	8.0
31...	1050	190	3.0	SEP			
MAY				15...	1230	110	8.5
26...	1020	100	5.0				
09124500 - LAKE FORK AT GATEVIEW, CO. (LAT 38 17 56 LONG 107 13 46)							
OCT , 1981				MAY , 1982			
22...	1410	140	7.5	26...	1300	130	9.5
DEC				JUN			
09...	1340	180	.2	29...	1020	80	8.0
FEB , 1982				AUG			
03...	1340	170	.0	11...	1150	110	14.0
MAR				SEP			
31...	1400	165	.2	15...	1030	105	8.0
09126000 - CIMARRON RIVER NEAR CIMARRON, CO. (LAT 38 15 45 LONG 107 32 39)							
OCT , 1981				MAY , 1982			
23...	1020	125	6.5	27...	1025	110	5.5
DEC				JUL			
10...	1020	160	.5	01...	1530	90	10.0
FEB , 1982				AUG			
05...	1235	65	.0	09...	1520	90	11.0
APR				SEP			
01...	1045	150	2.0	16...	1425	110	13.0

09128000 - GUNNISON RIVER BELOW GUNNISON TUNNEL, CO. (LAT 38 31 45 LONG 107 38 54)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 23...	1415	270	12.5	MAY , 1982 27...	1340	250	9.0
DEC 10...	1350	290	5.5	JUL 02...	1120	90	13.0
FEB , 1982 04...	1355	210	1.5	AUG 11...	1535	195	12.0
APR 01...	1430	--	3.5	SEP 17...	1130	165	11.5

09128500 - SMITH FORK NEAR CRAWFORD, CO. (LAT 38 43 40 LONG 107 30 22)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 08...	0930	210	8.0	MAY , 1982 26...	0935	50	6.5
DEC 09...	0915	170	.0	JUN 30...	0905	70	10.5
JAN , 1982 26...	1410	180	1.0	JUL 28...	0845	--	13.0
MAR 23...	1435	175	2.0	AUG 25...	0855	150	13.5
MAY 05...	0930	45	5.0				

09129600 - SMITH FORK NEAR LAZEAR, CO. (LAT 38 42 27 LONG 107 42 35)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 08...	1050	1500	12.5	MAY , 1982 05...	1130	355	7.5
NOV 19...	1135	2600	3.0	26...	1115	935	14.5
DEC 09...	1045	2800	.0	JUN 30...	1045	1800	19.0
JAN , 1982 27...	0850	3000	.0	JUL 28...	1010	2350	19.0
MAR 24...	0905	2230	4.0	AUG 25...	1015	2600	18.0

09131100 - COW CREEK NEAR PAONIA, CO. (LAT 39 06 15 LONG 107 35 02)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 07...	0955	140	4.0	JUN , 1982 25...	1000	74	9.5
DEC 08...	1000	--	.0	29...	1110	90	14.5
APR , 1982 12...	1645	40	16.0	JUL 12...	1645	40	16.0
MAY 05...	1155	105	.5	27...	1000	120	13.0
25...	1505	45	8.0	AUG 03...	1030	107	13.0
JUN 08...	1330	38	8.5	18...	1030	103	13.0
				24...	0950	120	12.0

09135900 - LEROUX CREEK AT HOTCHKISS, CO. (LAT 38 47 53 LONG 107 43 53)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 08...	1235	1400	14.0	MAY , 1982 05...	1420	135	9.0
DEC 09...	1255	1300	6.5	26...	1410	--	16.5
JAN , 1982 27...	1035	1350	5.0	JUN 30...	1250	1180	22.5
MAR 24...	1045	1150	7.0	JUL 28...	1210	1500	16.5
APR 16...	1100	200	5.5	AUG 25...	1215	1400	15.0

09136200 - GUNNISON RIVER NEAR LAZEAR, CO. (LAT 38 46 59 LONG 107 50 14)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1981			
08...	1410	1300	15.0
26...	0950	1070	7.0
NOV			
10...	1040	290	6.5
JAN , 1982			
27...	1250	1150	4.0
MAR			
24...	1335	600	7.0
APR			
21...	1130	310	6.0
MAY , 1982			
05...	1635	155	10.5
27...	0905	200	9.5
JUN			
30...	1510	405	20.5
JUL			
28...	1405	1100	23.0
AUG			
25...	1415	1450	18.0

09137050 - CURRANT CREEK NEAR READ, CO. (LAT 38 47 05 LONG 107 56 18)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1981			
07...	1600	4700	14.5
DEC			
08...	1520	4900	4.0
JAN , 1982			
27...	1410	5200	4.5
MAR			
24...	1500	2490	9.0
APR			
16...	0900	900	7.0
MAY , 1982			
06...	1045	--	6.0
26...	1550	1610	22.0
JUL			
01...	0755	3040	16.5
29...	0805	4000	18.5
AUG			
26...	0755	6000	17.0

09143000 - SURFACE CREEK NEAR CEDAREDGE, CO. (LAT 38 59 05 LONG 107 51 13)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1981			
08...	1615	125	6.5
DEC			
09...	1455	150	.0
JAN , 1982			
28...	0905	230	.0
MAR			
25...	1125	--	1.0
MAY , 1982			
06...	1300	70	5.5
27...	1245	65	10.0
JUL			
01...	0935	70	11.5
29...	0955	120	12.0
AUG			
26...	1020	120	13.0

09143500 - SURFACE CREEK AT CEDAREDGE, CO. (LAT 38 54 06 LONG 107 55 14)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1981			
09...	0910	145	6.5
DEC			
10...	0830	210	.0
JAN , 1982			
28...	1110	195	.5
MAR			
26...	1045	215	4.0
MAY , 1982			
06...	1430	85	7.0
27...	1050	75	11.0
JUL			
01...	1105	60	15.0
29...	1120	90	15.0
AUG			
26...	1230	90	15.5

09144200 - TONGUE CREEK AT CORY, CO. (LAT 38 47 16 LONG 107 59 41)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1981			
09...	1030	1850	11.0
DEC			
10...	1025	1800	3.0
JAN , 1982			
28...	1345	1850	4.5
MAR			
26...	0930	1060	7.0
APR			
16...	1300	625	10.0
MAY , 1982			
06...	1555	715	12.5
27...	1440	720	18.0
JUL			
01...	1245	1000	20.5
29...	1320	2000	22.5
AUG			
26...	1435	1700	21.0

09144250 - GUNNISON RIVER AT DELTA, CO. (LAT 38 45 01 LONG 108 04 06)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
OCT , 1981			
09...	1230	1030	13.0
DEC			
01...	1345	740	8.0
JAN , 1982			
29...	0855	680	2.5
MAR			
26...	1220	600	6.0
MAY , 1982			
07...	0930	340	7.5
28...	0945	440	12.0
JUL			
02...	0740	580	14.0
30...	0720	900	18.0
AUG			
27...	0745	980	15.5

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
09146200 - UNCOMPAHGRE RIVER NEAR RIDGWAY, CO. (LAT 38 11 02 LONG 107 44 43)							
OCT , 1981				MAY , 1982			
02...	1150	830	10.5	24...	1320	430	10.5
DEC				JUN			
07...	1315	830	5.0	28...	1410	280	13.0
FEB , 1982				AUG			
01...	1340	790	4.5	05...	1330	450	17.0
MAR				SEP			
29...	1330	740	7.5	13...	1235	440	9.0
09147000 - DALLAS CREEK NEAR RIDGWAY, CO. (LAT 38 10 40 LONG 107 45 28)							
OCT , 1981				MAY , 1982			
02...	1105	590	9.0	24...	1215	570	12.0
DEC				JUN			
07...	1200	660	12.0	28...	1210	360	10.5
FEB , 1982				AUG			
01...	1455	650	.0	05...	1140	385	11.5
MAR				SEP			
29...	1230	700	5.0	13...	1140	410	7.5
09147500 - UNCOMPAHGRE RIVER AT COLONA, CO. (LAT 38 19 53 LONG 107 46 44)							
OCT , 1981				MAY , 1982			
02...	1335	890	11.5	24...	1510	420	11.0
DEC				JUN			
07...	1455	800	4.0	28...	1615	260	14.0
FEB , 1982				AUG			
01...	1225	790	.5	09...	1220	500	15.0
MAR				SEP			
29...	1455	760	6.5	13...	1450	445	9.0
09149500 - UNCOMPAHGRE RIVER AT DELTA, CO. (LAT 38 44 31 LONG 108 04 49)							
OCT , 1981				MAY , 1982			
05...	1315	1750	14.0	07...	0840	665	7.0
DEC				28...	0735	935	13.0
07...	1225	2200	4.0	JUL			
JAN , 1982				01...	1435	910	20.5
25...	1240	1100	2.0	26...	1335	1550	21.5
MAR				AUG			
22...	1235	1740	7.5	23...	1400	980	19.5
09150500 - ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO. (LAT 38 44 06 LONG 108 09 40)							
OCT , 1981				MAY , 1982			
05...	1455	1600	15.0	03...	1635	200	11.0
DEC				24...	1440	265	15.0
07...	1350	2000	3.5	JUN			
JAN , 1982				28...	1405	1140	24.5
25...	1520	1750	2.0	JUL			
MAR				26...	1145	1400	19.5
22...	1405	1330	8.0	AUG			
APR				23...	1230	1580	20.5
15...	1300	360	7.5				
09151500 - ESCALANTE CREEK NEAR DELTA, CO. (LAT 38 45 24 LONG 108 15 34)							
OCT , 1981				MAY , 1982			
05...	1035	--	9.5	03...	1225	110	8.0
DEC				24...	1040	--	12.0
07...	1005	660	.0	JUN			
JAN , 1982				28...	1035	--	21.5
25...	1025	600	.0	JUL			
MAR				26...	0925	600	19.5
02...	1030	460	6.0	AUG			
22...	1030	510	3.0	23...	0940	82	19.5
APR							
16...	1020	150	4.0				

09152000 - KANNAH CREEK NEAR WHITEWATER, CO. (LAT 38 57 42 LONG 108 13 47)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 02...	1300	95	11.0	MAY , 1982 19...	1100	140	6.5
DEC 09...	1400	160	1.0	JUN 01...	1400	78	8.0
JAN , 1982 27...	1300	165	1.5	28...	1000	85	12.0
MAR 25...	1300	160	5.5	JUL 27...	1000	135	13.5

09152600 - ORCHARD MESA DRAIN AT GRAND JUNCTION, CO. (LAT 39 02 49 LONG 108 34 17)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 01...	1205	1780	15.5	MAY , 1982 19...	1300	1350	14.0
DEC 11...	1000	3400	5.0	JUL 08...	1100	1150	18.0
JAN , 1982 29...	1100	4400	3.5	SEP 03...	1100	1350	18.5
MAR 25...	1500	5000	19.0				

09152650 - LEACH CREEK AT DURHAM, CO. (LAT 39 05 27 LONG 108 36 25)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 01...	1000	1950	13.5	MAY , 1982 24...	1400	1100	18.0
DEC 11...	1100	4400	5.5	JUL 08...	0900	1000	16.0
JAN , 1982 29...	0800	4600	4.0	SEP 03...	0900	1300	17.0
MAR 26...	0800	5000	7.5				

09152900 - ADOBE CREEK NEAR FRUITA, CO. (LAT 39 08 13 LONG 108 41 48)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 01...	0920	1900	13.5	JUN , 1982 08...	0835	845	12.0
DEC 01...	0900	4500	2.0	JUL 08...	0840	1100	17.5
FEB , 1982 01...	1315	4600	4.0	AUG 02...	0900	1300	19.5
MAR 29...	1210	3290	8.0	30...	0900	1500	17.5
MAY 12...	0920	1050	10.0				

09153290 - REED WASH NEAR MACK, CO. (LAT 39 12 41 LONG 108 48 11)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 01...	1325	1900	16.0	MAY , 1982 13...	1115	1100	13.0
DEC 02...	1245	5000	5.5	JUN 09...	0920	795	13.5
FEB , 1982 01...	0945	5000	3.0	JUL 09...	0830	1140	17.0
MAR 30...	0910	3590	5.0	AUG 03...	0905	1500	19.0
APR 13...	1150	1300	12.0	31...	0900	1600	18.0

09163050 - BADGER WASH NEAR MACK, CO. (LAT 39 17 36 LONG 108 55 59)

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)	DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS)	TEMPERATURE (DEG C)
OCT , 1981 06...	0930	1090	13.0	JUL , 1982 22...	1020	910	21.0
APR , 1982 19...	1250	800	11.0	SEP 08...	1040	910	18.0
JUN 14...	1100	440	15.0				

DELTA COUNTY

384234N108085101

SC15-96-32BAD. State of Colorado. Drilled domestic water-table well in Dakota Group. Diameter, 6 in. (0.2 m). Depth, 230 ft (70.1 m). MP, 0.3 ft (0.091 m) above lsd. Altitude of land surface, 4,960 ft (1,512 m). Records available: 1976, 1978-80.

Aug. 6, 1982 (flowing)

GRAND COUNTY

400248N105560301

SB 1-76-18DBC. W. F. Linke. Drilled recreation water-table well in Middle Park Formation. Diameter, 6 in. (0.2 m). Depth, 603 ft (183.8 m). MP, 6.0 ft (1.83 m) above lsd. Altitude of land surface, 8,075 ft (2,461 m). Records available: 1973-80.

Highest water level, 3.4 ft (1.04 m) below lsd, Aug. 28, 1974; lowest water level, 76.25 ft (27.546 m) below lsd, Aug. 11, 1977.

1982 No measurement

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October 1, 1978

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^{2})
	$4.047\text{x}10^{-1}$	square hectometers (hm^{2})
	$4.047\text{x}10^{-3}$	square kilometers (km^{2})
square miles (mi^{2})	$2.590\text{x}10^{0}$	square kilometers (km^{2})
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^{3})
	$3.785\text{x}10^{-3}$	cubic meters (m^{3})
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^{3})
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^{3})
cubic feet (ft^{3})	$2.832\text{x}10^{1}$	cubic decimeters (dm^{3})
	$2.832\text{x}10^{-2}$	cubic meters (m^{3})
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^{3})
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^{3})
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^{3})
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^{3})
	$1.233\text{x}10^{-6}$	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^{3}/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^{3}/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^{3}/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^{3}/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons